

# OLDFIELD, PATTINSON & CO.

Concentrated Infusions

Fluid Extracts.

Concentrated Decoctions.

Solid Extracts.

Concentrated Liquors.

Fruit Essences.

Concentrated Essences.

Inspissated Juices.

Concentrated Waters.

Soluble Essences.

Concentrated Extracts.

Extract of Herbs.

Coated Pills.

Composition Essence.

Malt Extract.

Vegetable Colours, &amp;c.

DRUGS IN  
ORIGINAL PACKAGES  
AS IMPORTED.

PERSIAN  
BOUQUET  
AND  
LOZENGES

Cucumber  
AND  
Glycerine Cream  
IN  
BULK & BOTTLED.

SPECIAL TERMS  
TO  
LARGE BUYERS.

*Inquiries should state quantities.*

PRICE LIST WILL BE FORWARDED ON RECEIPT OF BUSINESS CARD.

## MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT DRUGGISTS, IMPORTERS of ESSENTIAL, OLIVE, and COD LIVER OILS.

SOLE PROPRIETORS AND MANUFACTURERS OF THE

### "SILVER CHURN" DAIRY PREPARATIONS.

Butter Colouring.

GLASS BOTTLES.. 6d., 1/, 2/, 5/ Retail.  
4/, 8/, 16/, 38/ per dozen.  
BULK ..... 1/ per lb. 100/ cwt. in 2-gallon Bottles.  
90/ in 1-cwt. Kegs. 85/ in 3-cwt. Barrels.

Butter Powder  
and Preserver.

BOXES ..... 6d., 1/, 2/, 5/ Retail.  
4/, 8/, 16/, 38/ per dozen  
BULK ..... 1/ per lb. 84/ cwt. in cwt. Kegs.

Essence of Rennet,  
For Junkets, Curds and Whey,  
Cheese Cakes, &c., &c.

GLASS BOTTLES.. 6d. 1/. 2/. 5/ Retail.  
4/, 8/, 16/, 38/ per dozen.  
BULK ..... 1/ per lb. 10d. in 2-gallon Bottles.

Liquid Annatto,  
or Cheese Colouring.

STONE BOTTLES. 6d., 1/, 2/, 5/ Retail.  
4/, 8/, 16/, 38/ per dozen.  
BULK ..... 1/ per lb. 10d. in 2-gallon Bottles.  
84/ in 12-gallons. 80/ in 3-cwt. casks.

Cheese Rennet,  
OF  
SPECIAL STRENGTH.

STONE BOTTLES.. 1-pints, 9d. Retail. 6/ doz.  
Pints, 1/3 " 10/ "  
Quarts, 2/ " 18/ "  
1/2 gall., 4/ " 34/ "  
1-gall., 8/ " 68/ "  
BULK. At Special Prices. Inquiries should state quantity.

These Goods are selling well in the Agricultural districts. They are very attractively got up, are superior to any foreign makes, and are well worth the attention of the Trade, as they leave a good margin to the seller.

Attractive Show Cards and Printed Matter may be had on application.

## 17 TODD STREET, MANCHESTER.



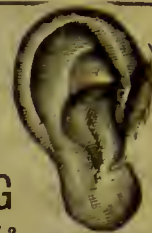
ESTABLISHED 1842.

**THE SCHOOL OF PHARMACY***Of the Pharmaceutical Society of Great Britain.*Chemistry, Prof. DUNSTAN, M.A., &c. Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.  
Botany, Prof. GREEN, B.Sc., &c. Materia Medica, Mr. H. G. GREENISH, F.L.S. Practical Pharmacy, Mr. JOSEPH INCE, F.C.S., &c.**FORTY-NINTH SESSION, 1890-91.***Application for admission to the School, for Prospectuses, or for further information or advice, may be made to the Dean, PROF. ATTFIELD, F.R.S., or to Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.*

resources of our office at their disposal.

**BOWERS BROTHERS, Printers**  
89, Blackfriars Road, and  
25, Canterbury Road, Brixton, S.E.**Look!****Important Features,****Listen!**NEWEST SHADES IN INKS.  
NOVELTIES IN PAPER.  
LONG EXPERIENCE.  
ORIGINAL IDEAS.  
LATEST DESIGNS.  
FAST PRESSES.  
CHEAPNESS.FINE SATISFACTORY.  
APPROPRIATE.  
ATTRACTIVE.  
ARTISTIC.  
QUAINT.  
PLAIN.  
ODD.**PRINTING**

WHAT APPEALS MORE PERSUASIVELY?



Write for Estimates &amp; Specimens.

Bowers Brothers, Blackfriars London, S.E.

PRIZE MEDAL,  
International  
Health Exhibition,  
1884.

THE NEW PERMANENT

**ENGRAVED WINDOW TABLETS**AWARD OF MERIT  
International  
Sanitary Exhibition  
1881.**IN RUBY, BLUE, AMBER, AND OPAL GLASS.**

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent

For Proprietary Articles, 100 8x6 Ruby Tablets, £8 15s. 0d.

**J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 80 GRAY'S INN ROAD, W.C.****TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.****ARTISTIC ADVERTISING!!****THE GEM GLASS PATENT SHOW TABLETS**

SPECIALITIES FOR DRUGGISTS AND CHEMISTS.

Pronounced by the many High-class Firms who use them to be the most Artistic and Beautiful Show Card now before the public. To be obtained from Messrs. MAW, SON &amp; THOMPSON and Messrs. LYNCH &amp; Co., Aldersgate Street, E.C., and Messrs. BARCLAY &amp; SON (LIMITED), Farringdon Street, E.C.; or from the Works—

**155 CURTAIN ROAD (corner of OLD STREET), LONDON, E.C.**

Published by J. &amp; A. CHURCHILL.

Lectures on Practical Pharmacy. By BARNARD S. PROCTOR, formerly Lecturer on Pharmacy at the College of Medicine Newcastle-on-Tyne. Second Edition. With 44 Wood Engravings and 32 Lithograph Facsimile Prescriptions. 8vo., 14s.

Veterinary Pharmacopœia, including the Outlines of Materia Medica and Therapeutics. By RICHARD V. TUSON, F.C.S., Professor of Chemistry, Materia Medica, and Toxicology at the Royal Veterinary College. Fourth Edition. Post 8vo., 7s. 6d.

NEW EDITIONS OF MR. CHAVASSE'S WORKS.

Advice to a Mother on the Management of her Children, and on the Treatment on the Moment of their more pressing Illnesses and Accidents. Fourteenth Edition (170th thousand), 2s. 6d.

Advice to a Wife on the Management of her own Health, and on the Treatment of some of the Complaints incidental to Pregnancy, Labour, and Suckling, with an Introductory Chapter especially addressed to a young wife. Thirteenth Edition (210th thousand), 2s. 6d. [2]

LONDON: 11 NEW BURLINGTON STREET.

**CROWDER & GLASS,**

Experimental Glass Blowers to the Wholesale Trade, Manufacturers of all Descriptions of Glass Syringes, Nipple Shields, Breast Exhausters, Sprays, Homœopathic Phials, Glass Surgical Instruments, and all kinds of Acids sealed in glass tubes.

Patterns made to descriptions or drawings. Estimates given. All orders promptly attended to.

83 LIVERPOOL ROAD, L1 LINGTON, N.

**MUTER'S SHORT MANUAL OF ANALYTICAL CHEMISTRY.** "At once the cheapest and most complete laboratory guide for pharmaceutical students, containing, within 200 pages, everything they require to know, from the simplest testing to the most elaborate quantitative work."

London: SIMPKIN, MARSHALL &amp; CO Stationers' Hall Court, E.C.

**LONDON HOMŒOPATHIC HOSPITAL AND MEDICAL SCHOOL, GREAT ORMOND STREET, BLOOMSBURY, W.C.**

President—THE LORD EBBURY. Chairman—MAJOR WM. VAUGHAN MORRIS. Contains 90 Beds, and being entirely supported by Voluntary Contributions, Donations and Annual Subscriptions are earnestly solicited. The Hospital is always open to the inspection of visitors, and Clinical Instruction is given in the Ward and Out-patient Department to Medical Students and Practitioners. It possesses a valuable Library of Homœopathic Publications, which Medical Men are invited to study. They are also invited to visit the Dispensary. The In-patients number over 700 annually; the Out-patients nearly 9,000 annually. The number of Patients treated since the inauguration in 1849 exceeds 215,000. It has a staff of 42 Nurses for Ward Nursing and Nursing Invalids at their residences.

G. A. CROSS Secretary-Superintendent.

**SOUTH-WEST LONDON SCHOOL**

OF

**CHEMISTRY & PHARMACY,****183 KING'S ROAD, S.W.**

(Close to Sloane Square and South Kensington Railway Stations).

**LARGEST SCHOOL OF THE KIND IN GREAT BRITAIN.**

PRINCIPALS.

W. H. MARTIN, F.C.S., M.C.S.I., and  
E. VICTOR HILL, Pharmacist,Assisted by EDWIN HADLEY, Prelim. Sci. (M.B.),  
1st B.Sc., &c.**The next Course will commence on  
TUESDAY, JANUARY 6, 1891.**

FEES TO FEBRUARY EXAMINATION. APRIL EXAMINATION.

Minor or Major .. .. £4 4 0 .. .. £8 8 0  
Preliminary (3 months) — .. .. 2 12 6*For Evening Classes see Prospectus.*The Directors are now registering Students for the  
February and April Examinations.**N.B.—See Advertisement in Diary, 1891.**



## HILDESHEIMER & FAULKNER'S POCKET FOLDING CALENDARS For 1891.

IN COLOUR AND MONOCHROME.

Prices  
from  
**35/-**  
to  
**50/-**  
per  
1,000.



Customers'  
Names  
and Adver-  
tisements  
printed to  
order in  
spaces left  
on  
Calendars  
for  
this purpose

DAINTY MEDIUMS FOR CHEMISTS' ADVERTISING.

APPLICATIONS FOR SAMPLES REQUESTED.

**HILDESHEIMER & FAULKNER**  
41 JEWIN ST., E.C.

WINTER SEASON, 1890-91.

## FAMILY REFERENCE ALMANACK, 1891.

Chemists may be supplied with the above popular Annual with their names, &c., on the cover, free of charge, on writing to Messrs. KAY BROTHERS LIMITED, and undertaking their distribution from house to house as soon as received. Also 1,000 bills for counter use, with name and address, if asked for. Enclose two (2) labels for correct address, with population of the district and best means of conveyance, under cover (labels on post-cards being contrary to regulations), addressed "Advertisement Department," at earliest convenience. The Almanacks will be sent direct from the printer with counter bills, show-cards, &c., if required.

TRADE **"COAGULINE"** MARK.

Kay's New Transparent Cement for Broken Articles.

"Clear as Crystal," "Stronger than Glass," "Tough as Leather," 6d., 1s., 2s., in Boxes, or on Cards.

Show-cards, Handbills, with name, &c. Specimens, &c., for home, or export, free.

## KAY'S COMPOUND

Essence of Linseed, Aniseed, Senega, Squill, Tolu, &c.  
(With Chlorodyne), 9½d., 13½d., 2s. 9d., &c.

**KAY BROTHERS LIMITED.**

LABORATORY WORKS:

ST. PETERSGATE MILLS. STOCKPORT.

## BLAKE & MACKENZIE,

Medical Label & General Printers,  
SCHOOL LANE, LIVERPOOL.

We make a speciality of **MEDICAL LABEL PRINTING**, and for Good Workmanship, Neat Designs, Punctuality, and Price, can compete successfully against any house in the Trade.

To Chemists who combine a **SEED TRADE** with their other business, we can supply them with every requisite suitable for that business, as we are **The Largest Makers of SEED POCKETS in the KINGDOM.**

Special attention is paid to Printing **Seed Catalogues**, Samples of which will be ready in November, and sent free on application.

**OUR CHEMISTS' CALENDARS FOR 1891 ARE NOW READY,**

And we strongly recommend applying to us for Samples before ordering elsewhere.

We make all descriptions of **POWDER** and other **ENVELOPES**, which are second to none for Quality and Price.

**CHEMISTS' STOCK LABELS, OF EVERY DESCRIPTION, KEPT IN STOCK.**

NOW READY, SECOND EDITION, CROWN 8VO., PRICE 5s.,

A PRACTICAL MANUAL OF

## VENEREAL & GENERATIVE DISEASES:

Including SPERMATORRHOEA, PROSTATORRHOEA, IMPOTENCE, and STERILITY in Both Sexes.

By **M. K. HARGREAVES, M.D.**

Assistant Physician to St. John's Hospital for Diseases of the Skin.  
LONDON: R. KIMPTON, 126 WARDOUR STREET, LONDON, W.

**TOWNSEND'S**  
**ALMANACKS** 1891  
FOR  
SEND FOR SAMPLES.  
J. TOWNSEND, LABEL PRINTER, EXETER.

**DAVIS' 1891**  
**TOILET**  
**ALMANAC**

Appreciated by Chemists and their Customers for the past 21 YEARS.

SEND FOR SAMPLE.

**JOHN DAVIS & CO., LIM.**

STEAM WORKS, 201 Old Kent Rd., LONDON, S.E.



**J. RAPHAEL & CO.,**

CHEAPEST HOUSE IN THE TRADE FOR

SPECTACLES, FOLDERS, FIELD, OPERA, AND  
MARINE GLASSES.

Repairs and Post Orders Despatched Same Day.

13 OXFORD STREET, LONDON, W.

ENTERED STATIONERS' HALL

**DAVIS'  
DOMESTIC  
YEAR  
BOOK,  
1891.**

(ILLUSTRATED)

EIGHTH YEAR OF  
PUBLICATION.**THE OLDEST.  
THE CHEAPEST.  
THE LARGEST.  
THE BEST.**Compiled expressly for  
Chemists' distribution,  
and highly commended  
by their Customers.SEND FOR SAMPLE  
With Chemists' (who have adopted Year  
Book) and their Customers' opinions.Published by J. DAVIS, at  
201 OLD KENT ROAD, LONDON, S.E.**FORD, SHAPLAND & CO.**

Medical Label and General Printers, Lithographers, Engravers, &amp;c.

8 GREAT TURNSTILE, LONDON, W.C.

**ALMANACKS AND CARD CALENDARS**

FOR 1891 ARE NOW READY.

NEW AND EXQUISITE DESIGNS. WRITE FOR SAMPLES.

Prize and other New Designs for COUNTER BILLS.

On White and Coloured Paper, Printed in Colours, and Specially Designed for Chemists' Advertising.

<p>THE WHOLESALE &amp; RETAIL <b>Druggists' Price Book</b> By D. ELLIOTT. NEW EDITION, revised accord- ing to the British Pharmacopœia, — 1885. — Pocket Size. Bound in Leather. Price 3/-, Post Free 3/2.</p>	<p>... LABELS OF EVERY DESCRIPTION. ...</p>	<p>THE CLINICAL CLERKS' GUIDE TO URINE TESTING. On 8-fold linen-lined card, 9 in. by 5 in. Price 7d.</p>
<p><b>NOW READY FOR 1891,</b></p>		
<p>PAMPHLETS. SHOW CARDS.  SAMPLES FREE BY RETURN OF POST.</p>	<p><b>SILVERLOCK'S SACHET, PRESENTATION, CARD, AND HANGING ALMANACKS.</b></p>	<p>PRICE LISTS. PROSPECTUSES.  SAMPLES FREE BY RETURN OF POST.</p>
<p><b>SILVERLOCK'S Medical &amp; Surgical Emergency Reference Book.</b>  NEW EDITION FOR 1891. Bound in Leather. Price 2/8. Post Free.</p>	<p>Chemists' Counter Bills, good quality, 7½ by 5 ... 10,000, 15/ Chemists' Counter Bills, good quality, 9 by 5½ ... 10,000, 22/6 Chemists' Slip Labels from 1/3 per 1000; a reduction on large quantities.</p>	<p>Chemists' Counter Bills, second quality, 7½ by 5 ... 10,000, 12/6 Chemists' Counter Bills, second quality, 9 by 5½ ... 10,000, 18/ Chemists' Pill Labels from 1/3 per 1000; a reduction on large quantities.</p>
<p><b>H. SILVERLOCK,</b> Medical Label and General Printer, 92. BLACKFRIARS ROAD, LONDON. S.E.</p>		
<p>THE NEW AND REVISED EDITION OF <b>The Liverpool Chemists' Price List.</b> Increased to 60 pages. Bound in Limp Cloth. Price 1s. Post Free 1/1½.</p>		
<p>ILLUSTRATED TRADE CATALOGUES, &amp;c.</p>		



# The Chemist and Druggist

## SUPPLEMENT

Businesses Wanted.  
Businesses for Disposal.  
Premises to Let.  
Auction Sales.

SATURDAY, NOV. 15, 1890.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

### CHEMISTS' TRANSFERS.

## MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

### CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1848, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON.—Thickly-populated locality; good-class Retail and Dispensing Business; returns £950, nearly all cash; well-fitted shop and good stock; good house, private entrance; about £700 required.

2.—LONDON CITY.—Retail and Dispensing; old-established concern; returns nearly £600 yearly; capital position for a pushing business; price £450; business will bear the fullest investigation.

3.—LONDON.—Thickly-populated locality; busy thoroughfare; returns from Mixed Business about £1,450 yearly; well-fitted and commodious shop and good stock; full investigation permitted; vendor retiring from business; will accept £500.

4.—LONDON, N.W.—Good opening for Dentistry; Retail and Dispensing Business of good class; returns £500 yearly; single-fronted well-fitted shop and good stock; 6-roomed house and garden; about £400 required.

5.—LONDON (near).—Good London suburb; Retail and Dispensing Business; been conducted entirely by assistant; returns £375, easily increased by principal; well-fitted shop and good stock; comfortable house; about £350; part may remain, if wished.

6.—LONDON SUBURB (West).—Retail and Dispensing; very profitable; returns last year £550; corner shop, double fronted; good house; about £450 required.

7.—SURREY.—Dispensing and Retail; established many years; returns nearly £800 yearly, with good profits; well-fitted single-fronted shop; good house and garden; price £650.

8.—NORTH DEVON.—Country town; good-class Dispensing and Retail Business; returns £450 yearly, increasing; satisfactory reasons for selling; opposition slight; rent £20; price £300.

9.—KENT.—Good-class Retail and Dispensing, situate in a large town; commanding shop; returns £700 yearly; good house; rent low; held on lease. Price £500.

10.—HOME COUNTY.—Good Retail and Dispensing, with small Wholesale attached; returns nearly £1,700 yearly, with good profits; large premises; valuation terms can be arranged.

11.—SOUTH OF ENGLAND.—Good-class Business; opportunity offers for the transfer, on easy terms, of first-class Retail and Dispensing Business; returns £1,600 yearly; handsome shop and good house; full particulars to bona-fide purchasers on receipt of reference.

12.—CATHEDRAL TOWN.—Home County.—Mixed Business; returns about £2,000 yearly; business capable of being much increased; well-fitted shop and good stock; about £1,000 required.

13.—CHANNEL ISLAND.—Good-class Business, unopposed; returns over £200 yearly; large shop, well fitted, and good stock; convenient house; good flower and vegetable garden; about £200 required; no qualification necessary.

14.—SOUTH COAST.—Winter resort; handsome corner shop; good-class Dispensing and Retail; returns between £1,300 and £1,400 yearly; full particulars on application; about £1,100 required.

Particulars of any of the above will be furnished on application.

### N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

### SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

### FOR SALE.

FOR Sale, a 52-inch bicycle; painted black; all steel; guaranteed sound; will take 30s. cash. 34 High Street, Putney, S.W.

### PARTNERSHIPS.

PHARMACIST joining advertiser will secure exceptional pecuniary and other advantages; small capital. "Labor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIP in good-class Retail Business; advertiser not registered; would invest £700 to £800. Address, "Delta," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIP.—Advertiser, aged 26, with 10 years' experience in the Retail, is anxious to enter a Wholesale house where, in return for services and the investment of a moderate capital, he would receive a fair remuneration. Address, "Musk," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

### TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WELL-FITTED old-established Shop to let at 129 Blackfriars Road (opposite the Surrey Theatre); rent 19s. a week; proprietor going to New Zealand on appointment, will sell drugs, fittings, &c., for a nominal sum; lease can be had of whole premises if desired. Apply on the premises.

### APPRENTICESHIPS.

APPRENTICE.—A vacancy occurs for a well-educated youth; one who has passed Prelim. or its equivalent preferred; comfortable home and assistance given in studies; premium required. Apply, Edwards, Chemist, Godalming Surrey.

F. E. CARPENTER, The Pharmacy, Bournemouth, Somerset, can now take an Apprentice; having an Agricultural business, also a Dispensing, a thorough knowledge of both can be obtained; moderate premium; apply early.



## F. J. BRETT,

### VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

**BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.**

**LONDON, S.W.** Light retail; returns over £100, with appointment worth £70 per annum; price £400.

**SHEFFIELD.**—Branch retail; with attention of principal can be much increased; price £200; cash £100 and rest as arranged.

**FLINT.**—Light retail; neglected; when attended to returned £10 per week; good shop and house; rent £15; price £140.

**KENT.**—Light retail, in good position of pleasant town; returns over £700; net profit £250; price £450.

**EASTERN COUNTIES.**—Good country retail; returns £1,100; excellent house and premises; price about £700.

**BIRMINGHAM.**—Returns £700; capable of increase, having only partial attention of principal; price £550.

**GLOUCESTERSHIRE.**—Good-class retail; no heavy trade; pretty district; good house and garden; returns £800; price £650.

## MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,

30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

**VENDORS** will find our Offices a quick medium for the Sale of genuine Businesses. Strict confidence guaranteed. Several good-class Businesses wanted, returning £700 to £1,500. Town or country.

**PURCHASERS** are invited to apply (stating their requirements) for particulars of businesses, sent free on application.

### NO CHARGE TO PURCHASERS

**KENT.**—Good market town.—Light Retail and Dispensing Business, with some good proprietaries; returns £855; net profit £376; low rent; good house; satisfactory reasons for selling; price £700.

**HANTS.**—Unopposed Retail, Dispensing, and Prescribing Business, in very healthy district few miles from coast; returns £650, steadily increasing; convenient house; price £500 or offer.

**YORKSHIRE.**—Light Retail, Dispensing and Prescribing; same hands 23 years; owner retiring; returns £1,050; net profit £400; low rent; good introduction; every investigation allowed; price £750.

**WORCESTERSHIRE.**—Retail and Prescribing Business; returns over £800 yearly, all cash; net profit over £350; rent £20; good house garden; price £500; every investigation and good introduction.

**SOUTH COAST.**—Branch Retail and Dispensing Business; returns £550 under management; low rent; elegantly-fitted shop; good position; price £450, or offer; half can remain if desired.

**EASTERN COUNTY.**—Unopposed for 4 miles; Retail and Prescribing; returns £330 at full prices; scope for improvement; rent under £20; good house, large garden; price £250.

**CAMBRIDGESHIRE.**—Retail and Prescribing trade in a large village; no opposition for 7 miles; neglected; returns £200, should do double; rent £18; good house, garden; price £100.

**LONDON, N.W.** Death Vacancy.—In good-class locality, Light Retail and Dispensing Business, returning over £1,000; large, elegantly-fitted shop, quite unopposed; good house; price £900 or offer.

**LONDON, W.**—Very good neighbourhood; first-class Dispensing Business; returns £700 under management; net profit £350; price £650; good house, low rent; only requires seeing.

**SPECIAL.**—Several small Businesses in Town and Country requiring the investment of £100 to £300; particulars on application.

Terms for Sale and Valuation on application.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

## BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**ASSISTANT** commencing.—An excellent opportunity to purchase, upon easy terms, a Business, capable of considerable increase, in a busy London main thoroughfare; ready-money trade; full prices; large, convenient house; good lease at low rental; not offered before. Address, "Nemo," Sanger & Sons, 489 Oxford Street, W.

**MIDLANDS.**—Old-established Retail and Agricultural Business in market town; good position; excellent shop, office, house, and premises; returns £90; dentistry might be added with great advantage; at valuation. Reason for disposal and all particulars, of "Vendor," c/o Messrs. Hodgkinson, Treacher & Clarke, 101 Whitecross Street.

**FOR** Disposal (proprietor retiring), Chemist and Druggist's Business in the centre of a thriving shipping port, doing a good tea and cigar trade as well; being a going concern, stock cost price, fixtures at valuation, the whole estimated from £400 to £500; rent of house and shop £24 per annum. Apply, A. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## Mr. G. B. CROCKER,

### Trade Valuer, Transfer Agent, & Accountant,

### 15 WALBROOK, E.C.

**HOMER COUNTY.**—Retail and Dispensing, with Stationery, &c.; returns £850; very low rent; price £500; handsome pharmacy, good house.

**KENT.**—Unopposed Retail and Dispensing; returns £550; price £500, rent £30, long lease; large house and garden; worth attention.

**MIDLANDS.**—An old-established Retail and Dispensing, with a little local Wholesale; returns £1,800; price £200 goodwill, and valuation of stock and fixtures, or a Partnership would be entertained.

**LANCASHIRE.**—Retail and Dispensing, with Post Office; returns £1,400; price £1,100; handsome pharmacy, well stocked; house contains 11 rooms.

**LEICESTER.**—Mixed Retail and Dispensing; returns £800; price £600; a reliable investment and well worth attention.

**LONDON, N.**—Retail and Dispensing trade; returns £500; price £350; good house; rent £45.

**LONDON (near).**—Retail and Dispensing; returns £850; price £725; this is specially recommended; good house, long lease, low rent.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

## BUSINESSES FOR DISPOSAL—Continued.

**MIDLANDS.**—Genuine Business; Drapery and Proprietary articles; entirely wholesale; capable of considerable extension; moderate capital required. Apply B. C. D., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**FREEHOLD** Premises and Business, in main thoroughfare, south, for sale; cold frontage; large house, good fittings, and stock; an unusual chance for anyone with £500 or £600. "Executor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**A READY-MONEY** Retail, in good position in large town, South of England; returns £400; can be much increased by Dentistry; few patents; rent low; price £300. Apply, by letter only, to W. H. G., 202 Villiers Road, Willesden Green, London, N.W.

**MIDLANDS.**—Country Town.—For immediate disposal, an old-established Light Retail Business, returning over £300; owner going abroad; price £250, or valuation; satisfactory reasons for disposal "Ferrum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TO** be Sold, at once, a genuine light Retail and Dispensing Business, in a nice town in West of England; only two chemists; good roomy house; corner shop; rent low; returns £750; price £650; satisfactory reasons for selling. Apply, "A.B.C.," 49 Laurel Grove, Penge, S.E.

**£950** cash price.—For sale, in a small town in Yorkshire, a Light Retail and Dispensing Business; returns doubled in two years; opposition nil; centre of hunting district; large and convenient shop and house; satisfactory reasons for disposal; every investigation courted. Apply, S. W. S., Raimie & Co., York.

**HULL.**—General Retail and Prescribing, with Dispensing; established 30 years; returns over £500; good proprietary article; most excellent opportunity for adding Dentistry; 6-roomed house; low rent; long lease; satisfactory reasons for disposal; open to good offer. "Chemist," Miss Shillito, Post Office, Porter Street Hull.

**A GENUINE** Prescribing, Dispensing, and Retail Business, in a good market town (first-class position), requiring an investment of about £700; very valuable proprietary medicines and recipes; exceptional opportunity; references given and required; no agents. "Nemo," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**FOR** disposal, proprietor taking larger business, an old-established Light Retail and Prescribing Business, in small town in Midlands, capable of great extension; good house at low rental, large garden, side entrance; returns nearly £400, increasing; dentistry covers rent; capital opening for Mixed business. "Specs," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**IN** main thoroughfare of prosperous Midland town, Light Retail and Dispensing Business; handsome mahogany and plate-glass fitted shop (well stocked); established two years ago; returns £400 per annum, and steadily increasing; good opening for dentistry; satisfactory reasons for disposal; good house and premises; low rent; price £350. H. M. T., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**A** unusual opportunity.—To be disposed of immediately, a sound, profitable Business, no opposition; good house and garden; very large chemical works close by; good prescriber would do well; a good trade done with shippers in oils, paints, &c.; immediate possession; personal interview invited; good reasons for selling; price £300, or reasonable offer. J. H. Bower, West Stockwith, near Gainsborough.

**YORKSHIRE.**—In prospering manufacturing town, population 15,000; Retail, Dispensing, and Prescribing Business; handsome mahogany fittings, recess-labelled bottles; double-fronted shop, well stocked; established 2 years; returns (chiefly cash), past 12 months, £700, steadily increasing; good house, side entrance, rent £24; price £550, or at valuation with small premium. Apply, "Yorks," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.



**FOR** Disposal (Liverpool, in the leading thoroughfare of the North-end), a genuine Retail and Prescribing Business; in same hands 20 years; average cash returns £11 per week; rent £30; corner shop; respectable working-class neighbourhood; a few weeks' introduction given; price £250; part can remain on approved security. "Vaseline," 58 Hanover Street, Liverpool.

**NORTH DEVON**—For disposal, genuine Retail and Prescribing Business; no opposition; most commodious and convenient house and premises; side entrance; large productive walled garden, planted with choice fruit trees, forcing pit, &c.; to an immediate purchaser a low price will be taken, and perfectly satisfactory reason given for selling. Address, "North Devon," c/o Messrs. Hodgkinson, Waltecross Street, E.C.

**FOR** immediate Disposal, a good Dispensing and Retail Chemist's Business in a fashionable county town in the South of Scotland, with doctors' consulting-rooms; two market-days in the week; fair prices; the business to be sold for £550; this includes, fittings, stock, goodwill, and prescription-copy books for many years back; returns per annum £500 to £600. 173/41, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WITHIN** easy distance of town.—General Retail, Prescribing, and Local Wholesale; returns approach £4,000, yielding a net average profit of £500 per annum; the business is easily worked and is capable of considerable development, both in retail and wholesale; there is a good house and garden; the town is rapidly increasing and has good scholastic advantages; will be sold for valuation of stock and fixtures, about £900. Apply to F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

## BUSINESSES WANTED.

**WANTED**, a sound Business, occupying a good position in London or suburbs, and returning not less than £600. Send full particulars, in confidence, to H. T., 23 Tulse Hill, Brixton, S.W. No agents.

**WANTED**, to purchase a genuine Retail, Dispensing, and Prescribing Business in London, giving a net profit of at least £400 yearly, or a genuine Proprietary Preparation would be entertained. Address, "Cinchona," 3 St. James's Villas, High Road, Lower Clapton, London.

**ADVERTISER** is desirous of purchasing a genuine Retail and Dispensing Business, requiring an investment of £500 to £700 cash, or larger if remainder could remain for a few months; London or country; references given and required; full particulars received in confidence. Address, J. G. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## TENDERS.

### TO MANUFACTURING CHEMISTS AND OTHERS.

**THE LONDON COUNTY COUNCIL** is prepared to receive Tenders for the supply of 1,500 tons of Manganate of Soda, to be delivered at the rate of not less than 50 tons nor more than 200 tons per week, from the 1st March, 1891. Persons tendering will be required to declare in their Tender that they pay such rates of wages and observe such hours of labour as are generally accepted as fair in the trade.

The Specification, Form of Tender, and other particulars may be obtained on application to the Chemist of the Council, at the Office, 40 Craven Street, W.C., until Saturday, the 22nd November, 1890. Tenders must be addressed to the Clerk of the London County Council, Spring Gardens, London, S.W., endorsed "Tenders for Manganate," and be sent in not later than 5 o'clock on Monday afternoon, the 24th November, 1890.

The Council does not bind itself to accept the lowest or any Tender.  
Spring Gardens, S.W., H. DE LA HOOKE,  
3rd November, 1890. Clerk of the Council.

### TO MANUFACTURING CHEMISTS AND OTHERS.

**THE LONDON COUNTY COUNCIL** is prepared to receive Tenders for the supply of 1,000 tons of Sulphuric Acid. Deliveries to be made in bulk at the Northern and Southern Outfalls, and in Carboys to Stations within the Metropolis, commencing about the 1st May next. Persons tendering will be required to declare in their Tender that they pay such rates of wages and observe such hours of labour as are generally accepted as fair in the trade.

The Specification, Form of Tender, and other particulars may be obtained on application to the Chemist of the Council, at the Office, 40 Craven Street, W.C., until Saturday, the 22nd November, 1890. Tenders must be addressed to the Clerk of the London County Council, Spring Gardens, London, S.W., endorsed "Tender for Sulphuric Acid," and be sent in not later than 5 o'clock on Monday afternoon, the 24th November, 1890. The Council does not bind itself to accept the lowest or any Tender.

Spring Gardens, H. DE LA HOOKE,  
3rd November, 1890. Clerk of the Council.

## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**AT** once, Junior or Improver; must be able to Dispense. Carlton & Sons, Horncastle, Lincs.

**JUNIOR** Assistant wanted. Apply, with particulars, to W. Lloyd, 26 High Street, Carnarvon, N. Wales.

**JUNIOR**, in a Mixed Country Business; aged from 20 to 22. Apply D. D. Sutherland, Totnes.

**WANTED**, Locum-Tenens for one week. Apply to E. Sharpe, 60 West Street, Leeds.

**A YOUNG** man wanted as Indoor Assistant in an old-established open Surgery. H. H., 64 Great Portland Street, London, W.

**EXPORT**.—Wanted, a competent man for Wet Counter. Apply, by letter only, to Wyman & Westwood, 25 Charles Street, Farringdon Road, E.C.

**JUNIOR** Clerk wanted, aged about 16 years; Wholesale Druggists. Apply by letter only, "A," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**JUNIOR** Assistant wanted for Light Retail; state age, height, salary required, references and when disengaged. G. B., 20 Trinity Road, Birchfields, Birmingham.

**WANTED** immediately, an Improver (indoors); time given for study or recreation. Apply to H. V. Horsey, Dispensing Chemist, 55 Lodge Road, Southampton.

**JUNIOR** Assistant; indoors. Apply, stating full particulars as to experience, age, height, salary required, and references, J. W. Salt, Aston New Town, Birmingham.

**WANTED**, at once, a smart Turnover or Improver, must have good references; also Apprentice, must have passed Preliminary. Apply, Needham Bros., Chemist, Huddersfield.

**WANTED**, by end of November, a qualified Assistant, about 23; must be a good Dispenser. Send full particulars and photo (to be returned) to B. Allen, 125 Hampton Road, Redland, Bristol.

**OUTDOORS**; Major or Minor qualification imperative; for City; short hours. State all experience, age, and salary required, to "James," care of Baiss Bros. & Co., Jewry Street, Aldgate, E.C.

**COMPETENT** Junior for General Country Retail; qualified; outdoors. State age, experience, references, salary, and when at liberty, enclosing photo, Reade Brothers & Co., Wolverhampton.

**JUNIOR** Assistant; immediately; outdoors; Retail and Dispensing business; another assistant kept. Apply, stating age, height, references, and salary expected, to Henry Bell, 47 Crown Street, Halifax.

**MANAGER** wanted for business in a working-class neighbourhood; outdoors; preference given to one with a knowledge of French and able to extract teeth. C. J. Walker, 104 Farringdon Road, E.C.

**PRACTICAL** Chemist wanted to control warehouse and manufacture of beef extract; London. State age, salary, married or single, and experience. "Carnis," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**QUALIFIED** Assistant, accustomed to brisk cash business, wanted for London; hours moderate; outdoors. Apply, stating salary and all particulars to B. L. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, an Assistant with good experience; one capable of taking charge of a Mixed Business. Apply, stating age, salary, and references, and enclose photo, which will be returned, to J. Day, Chemist, Savile Town, Dewsbury.

**ASSISTANT**. Minor qualification, not under 23, indoors, for Mixed business; must be able to extract teeth and prescribe occasionally. Applicants to state age, height and references, and salary required, to Hugh Fairhurst & Co., Warrington.

**JUNIOR**.—Hamilton, Loug & Co. (Lim.), State Apothecaries, Dublin, require a Junior Assistant (indoors); hours liberal. Apply, enclosing carte and stating age, height, experience, and salary expected, to Dr. Hamilton, 3 Lower Sackville Street, Dublin.

**TRAVELLER** wanted in January next; one who has a good connection with Surgeons and Chemists in the Midland and Northern counties preferred; unexceptional references required. Apply by letter only, "Nemo," West Lodge, Barnshury Square, N.W.

**WANTED**, an Assistant, about 23 years of age, accustomed to good-class Country and Dispensing business; indoors; reasonable hours and comfortable home. Apply, stating age, height, salary, and references, enclosing carte if convenient, to L. Rowland, Chemist, High Street, Wrexham.

**IMMEDIATELY**.—Experienced Assistant; good Dispenser, accustomed to Photographic Sundries, and good-class business preferred; must have good references; state age, height, salary required, and full particulars; easy hours. H. Fisher, Pharmaceutical and Photographic Chemist, Newark.

**EVELINA** Hospital for Sick Children, Southwark Bridge Road, S.E.—Dispenser wanted; Minor qualification necessary; hours 9 A.M. to 3 P.M.; salary £70. Applications, with testimonials, addressed to the Committee of Management at the hospital, to be sent in on or before Tuesday, 18th inst.

**AN** Assistant, with fair knowledge of Dispensing and Retail; good-class business; 8 A.M. to 9 P.M.; evening off and alternate Sundays; must be obliging, industrious, and abstainer. References and detailed experience to W. T. Phillips, 193 Knight's Hill, West Norwood, S.E.

**ASSISTANT**, not under 22, for first-class Dispensing business; must be accurate dispenser and of good address; member of a Christian Church preferred; state age, salary required, and references; enclose photo. Timothy & Sandwith, Pharmaceutical Chemists, Bracknell, Berks.

**WANTED**, in a Western suburban business, an Assistant (indoors, with Minor qualification preferred); well up in Dispensing and General Retail. Apply, giving usual particulars as to age, experience, and salary required, to C. J. A. Messrs. Herrings & Co., 40 Aldersgate Street, E.C.



**WANTED**, a Junior Assistant about the end of this month; comfortable home, with time for study or recreation; one accustomed to prescribe and extract teeth preferred; state salary required and usual particulars, enclosing carte if convenient. Apply to E. Tribbe, Chemist, &c., Penryn, Cornwall.

**ASSISTANT** required immediately for brisk business in Newcastle-on-Tyne; outdoors; must be good Counterman, reliable Dispenser, and thoroughly well recommended. Apply, with particulars of experience, qualifications, salary required, age, &c., care of "Cashier," Messrs. Ismay & Sons, Newcastle-on-Tyne.

**INDOOR** Sonior of gentlemanly appearance and address and energetic business habits, accustomed to country trade; thoroughly trustworthy; good references indispensable; abstainer preferred; applications unanswered within 3 days declined. Apply, stating age, height, references, salary required, when disengaged, &c., to Fleeming, Pharmaceutical Chemist, Wolverhampton.

## SITUATIONS WANTED.

*1s. for twelve words; 6d. for every six words beyond.*

**JUNIOR**; 22; time to attend classes for Minor. 26 Percy Road, Wrexham.

**ASSISTANT**, 6½ years' experience; good references. J. H., 46 Waterworks Street, Hull.

**CHEMIST**; 2 years' London experience. MacSweeney, 88 Frederick Street, King's Cross.

**MANAGER**; qualified, experienced; references. "Chemicus," 54 Hereford Street, Sheffield.

**HALF-DAY** (mornings), any capacity; 30. "Moderate," 37 Grant Road, Clapham Junction.

**AS** Junior; aged 22; height 5 ft. 7 in.; 4 years' experience; disengaged. Thomas, Café, Cradley Heath.

**LOCUM-TENENS**; qualified; disengaged; good references. "Æsculap," Canterbury Lodge, Forest Hill.

**PART-TIME** employment required with Surgeon or Chemist. Stevens, jun., Chemist, Judd Street, W.C.

**AS** Assistant, Manager, or Dispenser; unqualified; aged 41. N., 10 Bateman's Buildings, Soho Square, W.

**TEMPORARY**; disengaged; aged 30; good experience; qualified; town or country. L. T., 165 Kingsland Road, N.E.

**WHOLESALE**.—Dry, Wet, Export, or Finishing Counter; 7 years' experience; good references. P., 73 Gloucester Road, Peckham.

**AS** Manager or Locum-Tenens; Prescriber, Dispenser, and Extract; aged 41; disengaged. "Cascara," 61 Church Street, Shirley, Hants.

**DISPENSERSHIP** or Assistancy; time for study; good references; Hull or neighbourhood preferred. J., 16 Gower Street, Longton, Staffordshire.

**DISPENSER**, &c., to Surgeon; experienced; good references; 23; tall; disengaged. Apply, "Surgery," care of Wadsworth, Chemist, New Street, Huddersfield.

**SOUTH AFRICA**.—Advertiser seeks a permanency; qualified; aged 23; 8 years' varied experience; good references. "Minor," 27 Bromfelde Road, Clapham.

**WANTED**, situation in good house; aged 26; 10 years' good references. Particulars, 242/7, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**LOCUM-TENENS** or Temporary Manager; country preferred; qualified; steady and reliable; highest references. "Extractor," 86 Florence Road, London, S.E.

**MANCHESTER**.—Mr. W. Spencer Turner will be glad to hear from Chemists in or near Manchester who are willing to receive Student-assistants for part time at low salaries.

**WHOLESALE**.—An experienced Pharmacist, having good business and analytical qualifications, desires an appointment. F. J. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**LOCUM-TENENS** or Temporary Manager; qualified; thoroughly experienced; good references; disengaged; town or country. A. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**ADVERTISER**, middle-aged, wishes day work at leading London Chemist's; medical qualification; 10 years' experience as Surgeon's assistant; has some small means. J. N., 27 St. John's Road, Highgate.

**QUALIFIED** Chemist and Dentist, aged 34, total abstainer, excellent references, many years' varied experience, seeks any position of trust; terms moderate. "Dens," 15 Bridge Street, Cambridge Street, Manchester.

**THE MANAGER**, 104 Farringdon Road, E.C., aged 35, married, desires situation (outdoors) with Chemist and Dentist; thoroughly proficient in all branches of Dentistry, and 20 years' experience in English and Foreign Pharmacies; fluent French; moderate salary. "Manager," 2 Granville Place, London, W.C.

**MANAGER**, or Temporary; qualified; references; 45. Williams, 70 Ledbury Road, Bayswater, W.

**JUNIOR**; Minor; aged 22½; height 5 ft. 8 in.; outdoors. Thomas, 11 Bond Street, Redruth, Cornwall.

**AS** Branch Manager or Outdoor Assistant; aged 35; qualified. "Chemicus," Sand Gate Villa, Paignton.

**ASSISTANT**; aged 23; experienced; tall; outdoors. Particulars to W. P., Five Oaken, Mortimer, Berks.

**JUNIOR**; 6 years' experience; aged 22; disengaged; salary moderate; E. N., 9 Kyte Street, Lenton, Nottingham.

**DISENGAGED** (28); Dispenser, Counterman, Prescriber. "Beta," 1 Litchurch Street, London Road, Derby.

**ASSISTANT**; outdoors; aged 23; good London experience; knowledge of bookkeeping. R., 268 King's Road, Chelsea.

**PART-TIME**, as Dispenser or otherwise, for afternoons or evenings only; disengaged. L., 12 Foubert's Place, W.

**MANAGER**, for branch or outdoor appointment; qualified; of good address and experience. "Cortex," 238 Easton Road, N.W.

**SITUATION** as Traveler or Assistant, or both; 6 years' London and provincial experience. "Extractor," A. Towso, Mulgate, Selby.

**FRENCHMAN** desires engagement in English Pharmacy; excellent references; salary moderate. D. D., 45 Dean Street, Soho Square.

**AS** Junior; nearly 2 years in first-class Dispensing business; lately managed a Branch; passed Prelim. Address, F., 149 Rue End Road, E.

**PART-TIME**, in return for board and lodging or equivalent; 12 years' experience; immediate; highest references. J., 84, East Sittingbourne.

**AS** Junior in good Dispensing business; 5 years' experience; height 5 feet 8 inches; disengaged. Tremear, care of Wright, Chemist, Lowestoft.

**ASSISTANT**; qualified; 22; height 5 ft. 7 in.; Midlands and outdoors preferred; good references; varied experience. H. R., 9 St. Catherine's Terrace, Lincoln.

**WHOLESALE**.—As Wet Counterman or position of trust in a London house; over 8 years' Wholesale besides Retail experience; highest references; disengaged. R. B., 3 Lyander Grove, Upper Holloway.

**ADVERTISER** desires a situation as Manager of a Branch, with ultimate view to purchase, or any responsible position; would travel; 16 years' experience; own account. "Z," Messrs. Loftthouse & Saltmer's, Hull.

## MISCELLANEOUS.

**SAFFRON BUYERS**.—Write for prices of small or large quantities. Saffron Importer, 105 and 105 Wood Street, London, E.C.

**DENTAL**.—Wanted, Private Lessons in Model-taking, &c., in or near Sheffield; state terms. Apply, 243/2, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**YOUNG** Pharmacist, German, speaking French and a little English, seeks a situation in London by 1st April 1891, or earlier.

KARL ROSENHEIM,  
Waaghausgasse, 2,  
Bern (Switzerland).

## PRELIMINARY AND MINOR.

**ALL** Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hill's prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

## STUDENTS' AIDS TO EXAMINATION.

**PRELIMINARY**.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. **MINOR**.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemicus," care of Mr. J. Edwards, Wye, Kent.

## ROUSE'S STANDARD CARMINE

One ounce Tins, 1/8; post free for P.O., or through any Wholesale House.

**IMPROVED AND ORIGINAL FORMULÆ GIVEN** with each tin for the preparation of Face Powders, Bloom of Roses, Liquid Cochineal (labels for these supplied gratis), and practical suggestions and formulae for its economical use in Tooth Pastes, Tooth Powders, Rose-leaf Powder, &c.

ROUSE & CO., WIGMORE STREET, LONDON, W.





PEPSALIA is a combination of digestive agents with Chloride of Sodium, and not a mere mixture of Pepsin and Salt. Is a Condiment, not a Medicine.

KEEPS GOOD IN ANY CLIMATE.

Is used at meals in the same quantities as, and in lieu of, ordinary table salt.

*The Lancet*, May 20, 1890, says:—"In Pepsalia we have a convenient means of aiding digestion."

*The British Medical Journal*, June 28, 1890, says:—"Pepsalia possesses a high degree of digestive power. We have satisfied ourselves that it affords a strong aid to digestion. The claims put forward for PEP-SALIA are justifiable."

*The Medical Press and Circular*, April 16, 1890, says:—"Pepsalia gives evidence of great digestive activity."

Dr. HEHNER, the eminent Analyst, says:—"Pepsalia, when used as an ordinary table salt, exercises powerful solvent action upon nitrogenous materials."

G. & G. STERN have received numerous Testimonials from Medical Men with reference to Pepsalia.

M.D., &c., Cavendish Square, writes, July, 1890:—"During the short time I have been trying your PEP-SALIA upon myself I have acquired the greatest benefit from it."

"An indigestion which has been slowly growing, resulting in flatulence, discomfort, and sleepiness after meals, general lassitude and depression, has with all these disagreeable symptoms vanished as by a charm since I commenced merely substituting PEP-SALIA for ordinary table salt with my dinner."

Surgeon Major —, M.R.C.S., &c., writes:—"PEPSALIA promotes the digestive process of food. It cannot be too highly recommended."

M.D., M.R.C.P., London, writes:—"I have used PEP-SALIA, and am much pleased with it. It acts well as a digestive, and it gives me pleasure to recommend it to my patients."

F.R.C.S., London, writes:—"I consider PEP-SALIA a good digestive, having taken it myself for dyspeptic symptoms with great benefit."

Price 1s. and 2s. per Bottle. To Chemists, at 10s. and 20s. per Dozen, less 10 per cent. discount.

**G. & G. STERN,**  
62 GRAY'S INN ROAD, LONDON, W.C.

Will send Samples for distribution among Medical Men, and Literature, free on application.



# EXCHANGE COLUMN.

This Section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week.

Remittances payable to EDWARD HALSE.

## FOR DISPOSAL.

### Drugs and Chemicals.

Surplus drugs—2½ lbs. pulv. eubebæ, 2 lbs. bismuth subnit., 1 lb. potass. iodid., 3½ lbs. opium tere., 14 lbs. good gum, &c., cheap to clear. Calow, Lingdale, Cleveland.

### Dental.

Dental stool, comprising lathe, vulcaniser, bench tools, impression trays, filling instruments, teeth, amalgam fillings, &c.; very little used; send for complete list; opportunity for beginner. Sturt, Dewsbury.

### Educational.

Squire's "Companion," 14th edition, fairly good condition, 4s. 6d. Edwards, Chemist, Seymour Street, Euston Square.

Pharmaceutical journals, last twenty-two years', twelve years' bound in cloth (uniform), all in good condition; what offers? 237s.29.

Evans's "Materia Medica Cabinet," splendid specimens, cheap, cash or exchange Minor books. Wye, 85 Week Street, Maidstone.

Wills's "Chemicals of the British Pharmacopœia," 8s. 6d. (invaluable to Minor students); Wills's "Fruits and Flowers," three parts, 1s.; Wootton's "Problems," 1s. 6d.; "Selecta à Præscriptis," 2s. 6d.; "Art of Dispensing," 2s. 6d.; Royle's "Materia Medica," 7s. 6d. Williams, 148 Falcon Road, Clapham Junction.

### Formulæ.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Thoroughly good working and reliable recipes. Enclose stamp for list and prices to Williams, 148 Falcon Road, Clapham Junction.

Brooks's reliable recipes stand first. "Glycerine Cream," perfection of winter requisites; elegant, not sticky, delicately perfumed; cures chaps, roughness, redness, &c., rendering the skin like velvet (sale at Hornsey last year trebled itself). "Balm of Glycerine and Liquorice," splendid all-round cough cure; nice taste, elegant look, perfectly safe for children or adults; capital for retailing by oz.; 2-oz. bottles cost 2s. 6d. doz. "Sweet Memories," latest pungent, exhilarating, bouquet, sells well; list of 400 others free; recipes 7d. each, three for 1s. 6d., with directions free. Latest—"Sweet Solid Perfume," 2d. blocks, nothing like them in market, pronounced far and away best; sale increases weekly; recipe and sample dozen, free, 2s. 6d. Tom Brooks, Chemist, Hornsey, London, N.

### Proprietary Articles.

One gross Valentine's meat juice, 29s. 3d. per dozen, quite clean and fresh. 239/18.

Thirty-six Steedman's, 36 Scott's, 6 Holloway's 6 Whelpton's, 4 Beecham's—all 2s. 9d. sizes; cheap. 241/8.

### Shop Fittings.

Bent glass counter-case, as Maw's A18, two for sale, measuring 5 ft. long each, price 5l. for one, or 9l. 18s. the two. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Entire fittings of chemist's shop to be sold, together or separate, great bargain, consisting of drawers, counter, dispensing screen, shelving, bottles, carboys, specie jars, &c. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Second-hand shop-fittings, show-cases, shop-rounds, specie-jars, carboys, pill-machines utensils, and every necessary for chemists commencing or fitting up branch shops, at half the usual prices; state requirements or call. Natali & Co., 184 Aldersgate Street, London, nearly opposite Maw's.

For sale.—Mahogany wall-case, 10 ft. long and 5 ft. high, opening in front with five solid mahogany glass doors, 6l. 15s.; mahogany wall-case, 7 ft. long, 2 ft. 10 in. high, opening in front with four solid mahogany and glass doors, 4l. 5s.; Spanish mahogany dispensing screen, plate-glass, very handsome, 7 ft. long, 6l.; mahogany glass-fronted counter, 9 ft. long, 7l. 10s.; several writing desks and glass cases in front, 2l. 5s.; large number of mahogany drug drawers, labelled, in 6 ft. nest, at 3l. 7s. per nest; plate-glass counter-cases, window show steps, window enclosures, deal counter drawers, mahogany cornering, shelving, lockers; mahogany-fronted counters; one 10 ft. Spanish mahogany dispensing-screen, all plate-glass, and very handsome. All the above to be sold very cheap. Bygrave, 111 Shepherdess Walk, London, N.

### Miscellaneous.

Block letters for sign "G. A., D.R.E.L., Chemist," 239/22.

Patent and homœopathic medicines, enemas, cigar cases, &c., cheap. 220/41.

Violin with ease and Blagrove's 10s. 6d. tutor, 2l. George Lee, Pilton, Barnstaple.

5-cwt. platform scale (Avery's), 3l., very little used. Benjamin Waddington, Thornton, near Bradford.

Microscopic slides, medical educational, interesting, from 2s. 6d. per dozen; lists. B., 233 Maida Vale, W.

Minor hooks for sale, tooth instruments wanted, exchange list. A., 4 Victoria Terrace, Harrow Green, N.E.

No. 10 "Enterprise" drug mill, good as new, cheap for cash, or exchange shop rounds and jars. Smith, Chemist, Pershore.

Pinder's pill-machine, 6l., cost 11l.; Cutriass' "Eclipse" E. Q. dynamo, 40 amperes, 5 volts, for plating, cost 7l., nearly new, offers. 237/30.

Pill machines: 3 gr. to cut 12, 5 gr. to cut 12, ditto 24; Southall's Collection (120) materia medica specimens; offers. Griffith, Chemist, Huntingdon.

100 doz. Mawson's "Castle" dry plates, 8d. doz.; 3 cwt. pulv. pot. nit., little soiled, 18s. cwt. Wanted, lump antimony. 41 London Road, Manchester.

Job lots of mineral-water and other bottles; 100 gross aplit lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 85/61.

Microscope of great power and definition, in polished case, perfect condition, two powers, concave mirror, stage pliers, and water trough, sacrifice for 1l. 2s. 6d. John Hunter, Chemist, Barbourne, Worcester.

New-run honey, beautiful golden colour, 6d. lb., in jars holding about 28 lbs.; pure glycerine, in 56-lb. tins, 6½d. the lb.; vaseline, in 56-lb. and 28-lb. tins, 4½d. the lb.; samples of each 3 stamps. Johnson, Chemist, Godalming.

Ashworth's metallic comb brushes, various sizes and kinds, in quarter, half, one dozen, or larger lots, delivery free, at 20 per cent. off wholesale house net list prices; large stock to clear, all perfect; remittance with order. Wesley Jones, Llanelli.

Trusses.—Being overstocked, will sell Maw's and Bailey's inguinal trusses, right, left, and double, at 10s. and 20s. per dozen; also Cole's patent single and double, slightly soiled through being in window. Stieger, care of Lofthouse & Saltmer, Hull.

15 ls. 6d. Hardeman's I.P. bellows; 9 3d. Hardeman's powder; 1½ lb. aniline dyes, assorted colours, in bulk; 5 4-oz. bent-glass female syringes; 18 ½-lb. extraet jars, black metal covers; two brass enemas, fig. 1, Maw; two brass breast pumps, fig. 4, Maw; 13 pairs Lawrence's spectacles; no reasonable offer refused for whole or part. Breeze & Co., Plymouth.

## WANTED.

Surplus stocks of patent medicines, &c., cash or exchange. 241/20.

Small set dental forceps, suppository mould for 6, good farrier's book. Galloway, Chemist Yeadon.

The *Chemist and Druggist* for September 3, 1887, 6d. per copy offered by Shaw, 22 Market Place, Hull.

Dental show-case with or without specimens, twenty 4-lb. blue ointment-jars, fig. 13. Maw's, Squire's "Companion," "Martindale's "Pharmacopœia," recent editions. Longtoft, Hampton-on-Thames.

Second-hand, last editions, Attfield's "Chemistry," Bentley's "Structural Botany," "British Pharmacopœia," Ince's "Latin Grammar of Pharmacy," Bentley's or Southall's "Materia Medica," S. White, Bndleigh Salterton, Devon.

Manufacturing perfumers.—Working formula wanted to manufacture perfume of cherry blossom, crab apple, and white lilac class understood to be entirely artificial and not pomades. Sample of perfume, with cost per gallon and price, of formula, to Hill, Post Office, Berners Street, London.



# 1890. TWENTY-FOURTH SEASON.

## THE LUNG PROTECTOR

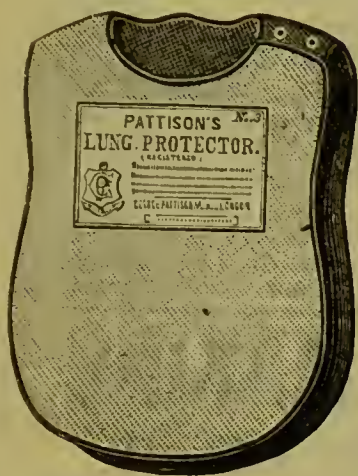
(REGISTERED).

REGISTERED  
LUNG  
PROTECTOR  
TRADE MARK

"AN ARTICLE OF ACKNOWLEDGED EXCELLENCE."

The "LUNG PROTECTOR" continues to be made only from the same Fine Soft Wool which has always been used since its introduction, 24 years ago.

Chemists are respectfully cautioned against imitations made from lower quality Wool, although sold as "Best Felt."



The Lung Protector.  
ORIGINAL PATTERN.



Lung Protector.  
THE AMERICAN.



Lung Protector.  
THE CANADIAN.



Chest Protector.

### PRICES:

	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
ORIGINAL PATTERN, Nine sizes...	10/-	14/-	18/-	26/-	34/-	42/-	52/-	60/-	70/- per doz.
THE AMERICAN, Seven sizes ...	—	—	20/-	28/-	36/-	44/-	54/-	62/-	72/- "
THE CANADIAN, Seven sizes ...	—	—	22/-	30/-	40/-	50/-	60/-	70/-	80/- "

## FELT CHEST PROTECTORS.

	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
Nine sizes ...	4/-	6/-	8/-	10/-	12/-	16/-	20/-	24/-	28/- per doz.

All in Scarlet and White, and made in same Wool as the "Lung Protector."

FELT CHEST PROTECTORS, C QUALITY {Single .. No. 1, 7/-; 2, 9/-; 3, 11/-; 4, 14/-; 5, 18/- per dozen.  
Double.. No. 1, 16/-; 2, 22/-; 3, 28/-; 4, 34/-; 5, 44/- per dozen.

These are warranted equal to BEST of other makers, but are NOT recommended.

Terms: All Wholesale Houses either allow a large Discount for Cash, or quote the goods at Reduced Net Cash prices.

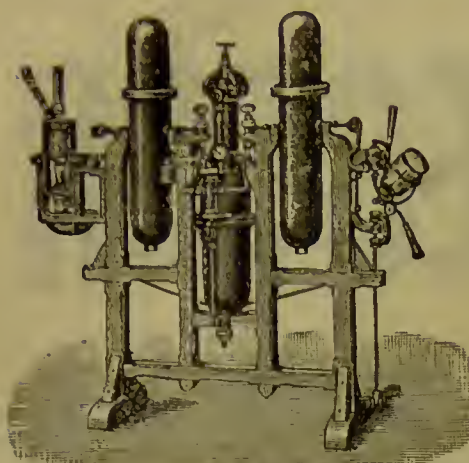
# GEORGE PATTISON,

INVENTOR AND MANUFACTURER,

139, ST. JOHN STREET ROAD, LONDON, E.C.



# A. LOZÉ & CO., LD., 281 WEST DERBY ROAD, LIVERPOOL.



INDISPENSABLE TO CHEMISTS.  
**THE ONLY PRACTICAL SODA WATER MACHINE.**  
 Self-working by Chemical Action. No Skilled Labour.  
 NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.  
*Produces the Purest Aërated Water made.*

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

COUNTY LABORATORY, 30 BROWNLOW STREET, LIVERPOOL, October, 1889.  
 I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way.  
 J. CAMPBELL BROWN, D.Sc.

CHEMICAL LABORATORY, 20 ALBERT GATE, MANCHESTER, 21st August, 1889.  
 GENTLEMEN,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescott Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda; the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours,  
 C. ESTCOURT, F.I.C., F.I.

Messrs. A. LOZÉ, & CO., LIMITED.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly,  
 ROBT. J. GOW, F.C.S.

DITTON, 10th April, 1890.

## SODA WATER MAKING

WITH  
 LIQUEFIED CARBONIC ACID GAS.

The No. 1 "Compact" Machine (as shown) is specially designed for Chemists and Hospitals, and can be used for either Syphons or Ball-stoppered Bottles.  
 Producing capacity, by hand power, 60 dozens per hour.  
 Ditto, for steam power, 120 dozens per hour, with extra filling machine.

**PRICE £60.**

The No 2 "Compact" Machine, made on the same principle, but smaller in its capacity.  
 Producing capacity, by hand, 25 dozens per hour.  
 Ditto, for steam, 60 dozens per hour, with extra filling machine.

**PRICE £38.**

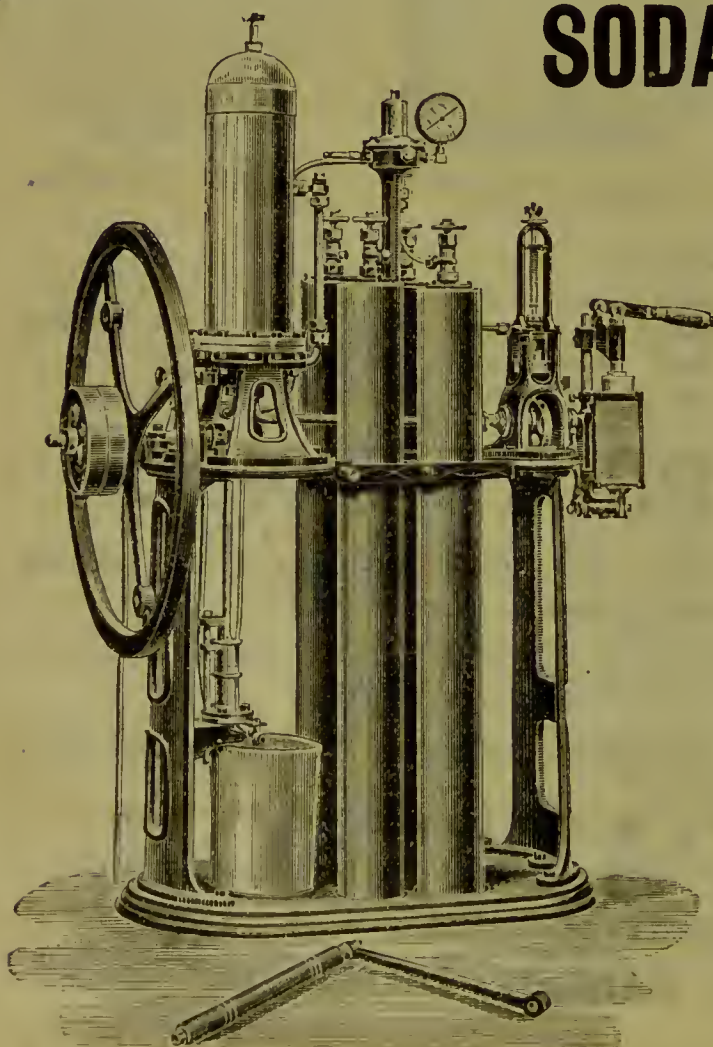
Iron Vessel containing an average of 28lbs. by weight of Liquefied Gas ... .. } 10s. each.

And has sufficient Gas to manufacture about 20 gross Soda Water (10 oz. Bottles), or from 3,000 to 4,000 draughts from the Counter Fountain.

A Charge of £3 is made for the Iron Vessel, but when returned, the full amount is credited.

Send for Catalogue "C," giving complete information.  
 Forwarded free upon application to

**BARNETT & FOSTER,**  
 "Niagara Works,"  
 26 Eagle Wharf Road, LONDON, N.





146 MINORIES, LONDON E.C.  
New York  
Sydney  
&c.

**SODA WATER MACHINERY**  
AND ALL ACCESSORIES FOR THE TRADE

**BRATBY & HINCHLIFFE, LIM.**

HEAD OFFICE  
SANDFORD ST. ANCOATS, MANCHESTER.

BOXES BOTTLES, MACHINERY,  
ESSENCES  
Catalogues, Circulars, Testimonials  
Post Free



# SYPHONS & SELTZOGENES

**GREAT REDUCTION IN PRICE.**

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.



WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.  
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

## SODA-WATER MACHINERY.

**MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.**

We have obtained at the above Exhibition

## 3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

- 1st—SODA-WATER MACHINERY (Highest Award possible).
- 1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible)
- 1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

## BRATBY & HINCHLIFFE, LIM.

Aerated Water Engineers and Glass Bottle Manufacturers,

**SANDFORD ST., ANCOATS, MANCHESTER**

And at 146 MINORIES, LONDON. E.C.



EIGHT PRIZE MEDALS AWARDED

# GOODALL'S HOUSEHOLD SPECIALITIES.

## YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 8d., 1s., and 2s. each

## GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

## GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 8d., 1s. 2s. and 5s. Tins.

## GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2s., 8d., and 1s. each

## GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

## GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 8d., 1s. and 2s. each.

## GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

## GOODALL'S BRUNSWICK BLACK.

For Painting Stoves, Grates, Iron, Tin, &amp;c. 8d. and 1s. Bottles

## GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

## GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 8d., 1s. and 2s.

## GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In  $\frac{1}{2}$ -pint, 1-pint, and Quart boxes, 3d., 6d., and 1s. each.

PROPRIETORS—GOODALL, BACKHOUSE &amp; CO., LEEDS

# PATENT MEDICINES AND DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &amp;c., will be sent post free on application to

GOODALL, BACKHOUSE &amp; CO., LEEDS.

# XMAS CHEER

## DE CARLE'S WINTER BEVERAGES

Prepared from Fruit, combined with warm aromatics, making a delicious invigorating drink for the Festive Season, Evening Parties, Children's Gatherings, &amp;c.

MAY BE USED WITH HOT OR COLD WATER.

Flavours—Clove, Peppermint, Ginger Punch, Ginger Lemon, Raspberry, Lemonade, Black Currant, Cherry Brandy, &amp;c.

ONE PACKET MAKES  $1\frac{1}{2}$  PINT BY THE ADDITION OF SUGAR AND WATER.Retail at **4½d.** each.

Good supply of Handbills sent with each order.

*Order a 3-dozen Case, which we will send Carriage Paid for 10/-*

## DE CARLE & SON

Manufacturing Chemists,

## NORWICH.

Sole Manufacturers of

DE CARLE'S SOLID FRUIT JUICES.

## PACKING CASES

(FOR HOME AND EXPORT)

Of every description Manufactured on the shortest notice, at Moderate Rates, by

## SAMUEL STOTT & CO.,

25 Cherry Lane, Marybone, LIVERPOOL.

Telegrams—"Strength London."

Telephone No. 1703.

## T. & F. J. TAYLOR'S



## AERATED WATERS, Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.O.S.



**TO AERATED WATER MANUFACTURERS**

# HAY'S

## SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

ESSENCES OF GINGER, LEMON, ORANGE &c.

HOP ALE AND GINGER ALE ESSENCES.

Besides GOLD & SILVER Medals, these Essences have obtained the HIGHEST TESTIMONIALS from all the Medical Journals & from the Principal Trade Journals in this & other Countries.

**W. HAY, MANUFACTURING CHEMIST BEVERLEY RD. HULL**

PRICE LISTS FREE ON APPLICATION.

## LOEFLUND'S

### MALT AND STERILIZED MILK PRODUCTS



LANCET.—"We have nothing but praise to bestow."

BRITISH MEDICAL JOURNAL.—"Pure Hordeum possesses all the properties claimed for it."

CHEMIST AND DRUGGIST.—"Pure Hordeum may be relied on to contain the highest attainable proportion of diastase."

KINDERMILCH } Infant ALPINE MILK RUSKS (ground) } foods. CREAM MILK, unsweetened, sterilized. CREMOR HORDEATUS, delicious substitute for Cod-liver Oil.

PURE HORDEUM (Malt Extract); also with Cod-liver Oil, Hops, Iron, Lime, Quinine, and Pepsine.

MALT EXTRACT LOZENGES. MUSTARD LEAVES, best and cheapest.

Sole Agents—**ROBERT BAELZ & CO., 14-20 St. Mary Axe, E.C.**

## TOBACCO AND CIGARS—MIXED PARCELS.

Every Requisite for the Smoker in One Order.

The following Manufacturers' Packet Tobaccos supplied at their List Prices, CARRIAGE PAID:—Willis, Cope, Bignett, Gallaher, Taddy, Ogden, Phillips, Player, Murray, Archer, Clarke, Brankston, Morris, Mitchell, Smith, Lambert & Butler, Pace, Goodwin, Duke, Kinney, Kimball, Richmond Cavendish Company, Carrol, Lorillard, &c. Havana, Mexican, Manila, Indian, and Swiss Cigars and Cheroots at Importers' Prices.

The Cigarettes of the following Firms at List Prices:—Goodwin, Allen & Ginter, Kinney, Duke, Kimball, Au Bon Fumour, Willis, Player, Lambert & Butler, Cope, and the leading Egyptian and Turkish Houses.

BRITISH CIGARS from 4s. to 20s. per 100. All carefully selected and well matured. The largest and most varied stock in the United Kingdom to select from.

Irish Roll, Pigtail, Nallrod, Target, Cake, Plug, and all other hard Tobaccos; also Flakes, Shags, Virginias, Cut Cavendish, and every description of plain and fancy Cut Tobaccos of standard quality at lowest prices.

Tobacconists' Fancy Goods and Smokers' Sundries of every description at current rates.

Carriage paid on parcels from £2 upwards to any station in the United Kingdom. SEND FOR DETAILED PRICE LISTS.

**SINGLETON & COLE, Ltd.** { Tobacconists' Factors, Tobacco, Snuff and Cigar Manufacturers & Importers  
Cannon Street and Fore Street, BIRMINGHAM.

## CHAS. SOUTHWELL & CO.

SOLE MAKERS OF THE

### EXCELSIOR TABLE JELLIES

In Packets of  
half-pint, pint, and  
quart, costing  
less than one-third  
of the ordinary  
Bottled Jellies.



BLACK CURRANT  
ORANGE  
LEMON  
CALFSFOOT  
VANILLA  
NOYEAU  
CHERRY  
STRAWBERRY  
RASPBERRY  
PINE APPLE

PRICE LIST ON APPLICATION.

## CHAS. SOUTHWELL & CO.

WHOLESALE AND EXPORT CONFECTIONERS,

**DOCKHEAD, LONDON, S.E.**

## R. PORTER & CO., LEGHORN.

BUTI, LUCCA, FLORENCE, and other PURE OLIVE OILS.

WHITE ITALIAN CASTOR OIL.

BORACIC ACID (Crude). ORRIS & GENTIAN ROOTS, JUNIPER-BERRIES.

TUSCAN HONEY. ANCHOVIES, &c.

## AMORUSO & CO., BARI.

A A, Nos. 1, 2, 3, and other Pure Olive Oils.

ITALIAN ANISEED. FENNEL,

CUMMIN and MUSTARD SEEDS. GARLICS, ALMONDS, FIGS, &c.

PURE RIVIERA OLIVE OILS. CREPY'S PURE REFINED COLZA OIL.

Telegraphic Address—"GLARGEN LONDON."

GEO. WM. LARGEN, Wholesale Agent,

37 Gracechurch Street, London, E.C.



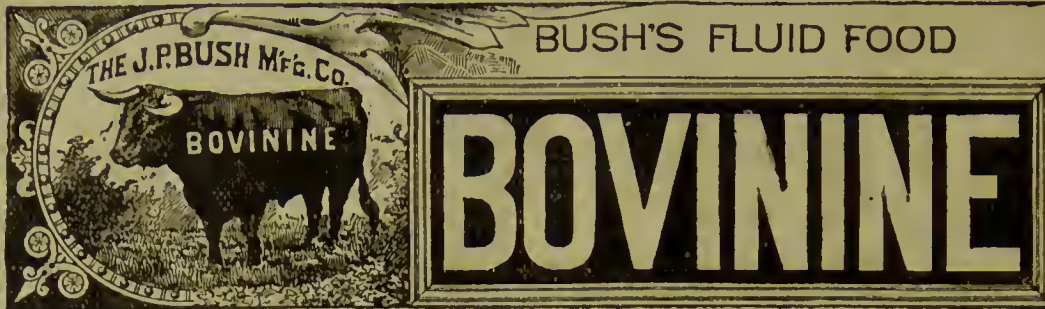
# THE FIRST RAW FOOD EXTRACT.

(Introduced to the Medical Profession in 1878.)

AN IDEAL FOOD.

PALATABLE.

KEEPS  
PERFECTLY.



CONTAINING  
20 PER CENT.  
OF  
COAGULABLE  
ALBUMEN.

## THE VITAL PRINCIPLES OF BEEF CONCENTRATED.

**BOVININE** consists of the juices of lean raw beef obtained by a mechanical process, neither heat nor acid being used in its preparation. The nutritious elements of lean raw beef are thus presented in a concentrated solution, no disintegration or destruction of the albumen having taken place. The proteids in solution amount to twenty per cent. of the weight of the preparation, and give to it the great dietetic value it possesses in all conditions where a concentrated and readily assimilable food is needed.

**BOVININE** is entirely distinct from the numberless meat preparations prepared with heat. It is a Food, pure and simple, Highly Concentrated, and the most Nutritious yet presented.

## TO CHEMISTS AND DRUGGISTS.

**BOVININE** has been prescribed and enthusiastically endorsed by thousands of Physicians and Surgeons in the United States and Canada for the past Twelve Years. We are systematically introducing **BOVININE** to the notice of the Medical Profession of Great Britain, and many are prescribing it daily. It is sold at prices within the reach of all.

## TO BE HAD OF ALL WHOLESALE DRUGGISTS.

In Bottles, 12 oz. (4s. 6d. size), 38s. per dozen; 6 oz. (2s. 9d. size), 24s. per dozen.

## THE J. P. BUSH MANUFACTURING CO.

Laboratory at Chicago, Illinois. Principal Office, 2 Barclay Street, New York, U.S.A.

DEPOT FOR GREAT BRITAIN - 32 SNOW HILL, LONDON, E.C.

## BRAGG'S

Sold in Powder, 2/-, 4/-, and 6/- bottles; also in Biscuits, 1/-, 2/-, and 4/- tins (Children like these), and in Lozenges, 1/1½ tins (portable and convenient).

Undoubtedly the most natural preventative and curative agent in all cases of Indigestion, Disorders of the Liver, Fevers, Cholera,

Dysentery, &c.

The trade cannot do better than keep these old-established and safe preparations under the notice of their customers.

## VEGETABLE CHARCOAL.



SOLE MANUFACTURER—

J. L. BRAGG, 14 WIGMORE ST., LONDON.

SHOW CARDS AND COUNTER BILLS ON APPLICATION.

# KRONENQUELLE.

THE FAMOUS NATURAL + MINERAL WATER.

For

Gout, Gravel,  
Rheumatism.



For

Kidney and  
Bladder Diseases.

TO BE OBTAINED THROUGH ALL WHOLESALE HOUSES.

[1]

SOLE AGENTS, W. SCHACHT & CO., 26 Finsbury Pavement, LONDON, E.C.



TRADE MARK.



*THE LANCET*:—"About one-third of the whole dry matter consists of true peptone, and another third of albumose. A variety of albumen uncoagulated by heat."—July 12th, 1890.

*VIENNA POLIKLINIK*:—"Your preparations . . . have proved excellent means of nutrition, and for strengthening individuals of great weakness and poverty of blood."—Prof. SCHNITZLER, Sept. 19th, 1890.

# DENAAYER'S

## LIQUID STERILISED PEPTONE OF MEAT.

Considerably more nutritive than beef, and more palatable than home-made beef-tea; elegant in appearance. No digestive function need, or can, be exercised, all having been fitted for immediate absorption. Life can be supported indefinitely upon it, and it does not clog upon the most fastidious and delicate palate. It contains all the stimulative extractives and the mineral salts in due proportion, as they exist in beef. 2s. per bottle, ready for use.

**LIQUID PEPTONATE OF IRON** (Denaeyer), 1s. 6d. per bottle, guaranteed to contain 10 per cent. of the salt in solution, equal to 3.30 per cent. of the metal.

**PULVIS FERRI PEPTONATIS** (Denaeyer), 4s. per ounce bottle, a beautiful reddish-grey powder, soluble in water, compatible with all alkaline or neutral medicines.

**TRUE PEPTONATE OF IRON** is the produce of our laboratory alone, and is our discovery. The salt is precipitated from its solution in presence of the acid gastric juice, redissolved and absorbed with great rapidity in the alkaline medium met with in the duodenum, so that it does not interfere with digestion, and it is not chemically altered by the juices of the alimentary canal. Should be administered before meals, and its flavour requires no disguise.

PAMPHLETS AND SAMPLES FREE TO MEDICAL MEN.

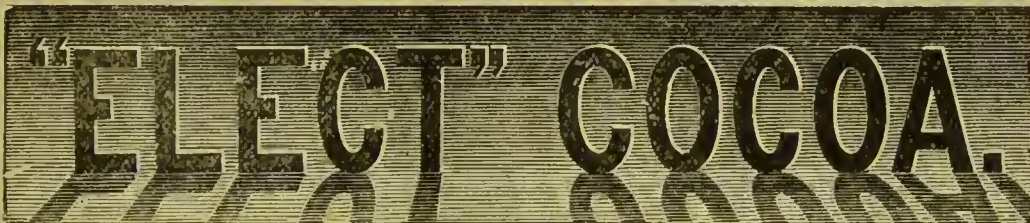
Wholesale General Agents—Edinburgh: DUNCAN, FLOCKHART & CO. Glasgow: OLD APOTHECARIES' COMPANY (Limited).  
Dublin: HAMILTON, LONG & COMPANY (Limited).

**DENAAYER'S PEPTONIDS AND EXTRACT OF MEAT COMPANY (LIMITED),**  
118 BISHOPSGATE STREET WITHIN, LONDON, E.C.

# ROWNTREE'S

The "MEDICAL PRESS AND CIRCULAR":—

"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the immediate production of a cup of excellent cocoa will ensure for this 'Elect Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee."



The "BRITISH MEDICAL JOURNAL" says:—

"Rowntree's Cocoa Extract is one of the best. Its flavour and aroma are good. Cocoa thus prepared is one of the most digestible articles of food."

YORK, ENGLAND.



# ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

## REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University),  
December 15, 1888.

Introduced 1855.

## ROBINSON'S CONCENTRATED WATERS.

(Introduced 1855.)

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Flp. " 4/ "	" Rosæ " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/ "	" " Ang. " 6/ "	" Rosæ Virgin. " 10/6 "
" Carul " 4/ "	" Flor. Sambuc. " 8/ "	" " Virid. " 4/ "	

The above are put up in Bottles of 4 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the *LANCET*, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice. (1)

Wholesale HARMON & Co., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.  
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.





**SPECIALITIES.**  
**HERBS IN PACKETS.**

Packed in 1 and 1/2 gross boxes, Assorted to order.



All herbs carefully selected and guaranteed best quality.

Price 7s. per gross.

Descriptive pamphlets, entitled "Popular Herbal Remedies," sent free with order.  
Handbills and Show Cards also supplied.

Price 6/ per gross.

On 1/2 gross cards, assorted to order.



WINGED

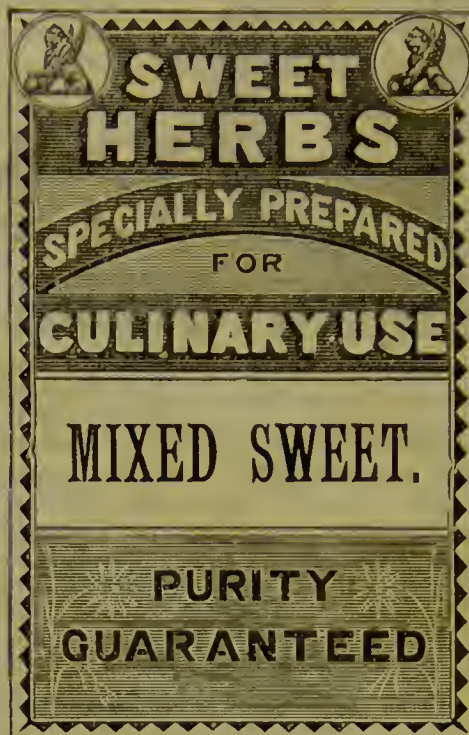


BRAND.

**P  
O  
T  
T  
E  
R  
&  
C  
L  
A  
R  
K  
E**

**SPECIALITIES.**  
**HERBS IN PACKETS.**

Packed in 1 and 1/2 gross boxes, Assorted to order.



These herbs are ready for use. An indispensable article for every household.

Price 7s. per gross.

May be had in 6d. screw-cap bottles, 3s. 6d. per dozen. Show cards supplied.

**MENTHOL CONES.**



Bottle Shape.



Vase Shape.

1d. Bottle Shape,  
6s. 6d. per gross.

1d. Vase Shape,  
7s. per gross.

1d. Pedestal,  
7s. per gross.

2d. Pedestal,  
14s. per gross.



Pedestal, 1d.

[2]

WHOLESALE BOTANIC DRUGGISTS,  
5, 6 & 7. RAVEN ROW, ARTILLERY LANE, LONDON, E.



**COMPARE, AND THEN DECIDE**

**5/6** per Gross.



BOTTLE SHAPE.

**PENNY MENTHOL CONES.**



BOTTLE SHAPE.

**5/6** per Gross.

On  $\frac{1}{4}$ -Gross Show Cards, with Elastic. Sample Free.

**PETER TYRER, 70 LONG LANE, BOROUGH, LONDON, S.E.**

# EXTRACT OF MEAT

W. E. AYLWIN, 27 Leadenhall Street, LONDON, Broker to all the Leading Importers and Packers.  
SAMPLES AND QUOTATIONS ON APPLICATION TO THE ABOVE.

## "MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 lb. Tins only.



**TADDY & CO., 45 Minories, LONDON**

ESTABLISHED 150 YEARS,

**SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.**



Write for List of Specialities

**"RAMORNIE."**

**LIEBIG'S**

Extract of Meat.

As supplied to the Admiralty, War, and India Offices.

1-lb. Jars.....	per lb.	6/9	.....	per doz.	81/0	2-oz. Jars.....	per lb.	7/8	.....	per doz.	11/6
$\frac{1}{2}$ -lb. Jars.....	"	7/0	.....	"	42/0	1-oz. Jars.....	"	8/4	.....	"	6/3
$\frac{1}{4}$ -lb. Jars.....	"	7/3	.....	"	21/9	$\frac{1}{2}$ -oz. Jars.....	"	8/8	.....	"	3/3

QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION.

Write for Detailed Price List to the Australian Meat Co., 9 and 11 Fenchurch Avenue, E.C.

6 lbs. Carriage free.



## AN AUTHORITATIVE VOICE.

[Name withheld by request of Author, but we are free to send it by post, along with others, and will do so if desired.—The L. C. C.]

I have twice analysed **Caffyn's Liquor Carnis**, at an interval of twelve months. The first sample was from the original factory in Australia, the second from the factory recently established in Kent, which I have inspected, and where I found complete and efficient arrangements for the more economical production of the juice in this country from fresh British beef. A batch of the juice was made in my presence. The greatest care and cleanliness were observed throughout the whole process, and the best possible means taken for the preservation of the extracted fluid.

The analyses and the inspection enable me to state that **Caffyn's Liquor Carnis** contains, first, all the substances characteristic of Liebig's Extract of Beef; it is, therefore, a powerful stimulant: but, in addition, I find it to contain all the soluble albuminoid constituents of meat; it is, therefore, also a nutrient or true food: and hence infinitely superior in true nourishing power to any Beef Extract or Beef Tea. For, in the preparation of Extract of Meat, or of Beef Tea or Mutton Broth, &c., the juice of the meat is necessarily heated, whereby the albumin, which is the nourishing part of the juice, is turned to curds, which are all, or practically all, strained out with and in the meat. In **Caffyn's Liquor Carnis** this highly valuable albumin is retained.

But Caffyn's process not only excludes the, for invalids, indigestible fibre of meat, and includes the albuminoid or true nourishing portion (absent from extract of meat), but it affords to such patients this nourishing portion in a fluid form, and, therefore, in a more easily assimilable and useful form, instead of in the solid, coagulated form in which it occurs in thoroughly cooked meat.

Lastly, Caffyn's process not only excludes fibre and includes fluid albumin, but it gives the actual natural

juice of flesh, containing each of its natural components in their natural proportions. Any natural combination of substances to be swallowed is generally regarded by medical practitioners as more valuable than an artificial combination. Thus true mineral waters are held to be superior to artificial waters, true vegetable juices to any more or less similar artificial juices; and so with animal juices.


Respecting the extent to which Caffyn succeeds in (a) excluding fibre, (b) including nourishing matter, (c) including stimulating matter, and (d) maintaining natural relationships, I may state that (a) manifestly fibre is excluded, for **Liquor Carnis** is a fluid; (b) manifestly albumin is included, for on heating **Liquor Carnis** abundance of clots of albumin at once show themselves; while my analyses and inspection show that (c) the stimulating principles are all included, and (d) the natural relationships perfectly maintained.

**Caffyn's Liquor Carnis** is juice of beef which has received the minimum of manipulation or addition, and which is unaltered in its natural stimulative and nutritive character. A steak is so cut as to render possible the extraction of its juice, a dash of salt is sprinkled over it, enormous pressure is then applied, and to the expressed fluid some glycerine is added. That is the whole process. The explanation of the keeping properties of the **Liquor Carnis** is to be found scarcely at all in the dash of salt present, tangibly in the added glycerine, but chiefly in the success with which atmospheric germs of decay have been excluded. As it went into the bottles so it comes out—sweet, sound, and natural.

Ph.D., F.R.S., F.I.C., F.C.S.,

Professor of Chemistry, &c.

August 13, 1890.

 Supplied in 3-oz. and 6-oz. Bottles, which sell at 2s. and 3s. 6d. respectively.

Pharmacists willing to distribute specimen bottles and literature to Medical Men will oblige by intimating the same to us and sending List of Medicos, with Addresses. [4]

# THE LIQUOR CARNIS CO., LTD.

General Offices: 50 HOLBORN VIADUCT, LONDON. Works: DEPTFORD, KENT.



Telephone Number, 1852.

Telegraphic Address—CHEMIOUS LONDON.

# ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

## ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

**NOTE.**—The Folios shown in this Index are those at the FOOT of the Page, and not at the TOP. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
American Toilet Co. .... 25	Fachmann Bros. & Walsh. .... 43	Layng, R. O. .... 56	Sainsbury, S. .... 57
Andrae, J., & Co. .... 41	Evans, Sons & Co. .... 41, 42	Learner, A. J. .... 57	Sanders, H. G., & Sons. .... 23
Apollinaris, The, Co. .... <i>Cover</i>	<i>Cover</i>	Lee, T. P., & Co. .... 57	Sauford & Son. .... 56
Armbrrecht, Nelson & Co. .... 34, 35	Evans, Lescher & Wobb, London. .... 41, 42	Leinon, B. G., & Co. .... 40	Sanger & Sons. .... 26
Austin & Co. .... 52	Evans & Sons (Lim.) .... 41, 42	Levermore, A., & Co. .... 55	Sanitas, The, Co. .... <i>Text 682</i>
Australian Drug Co. .... 36		Lovy, Julius. .... 38	Schacht, W., & Co. .... 14
Australian Meat Co. .... 17		Liquor Carnis Co. (Lim.) .... 18	School of Pharmacy, The .... 3
Aylwin, W. E. .... 17		Liverpool Lint Co. .... 44	Seabury & Johnson .... 24
Ayrton & Saunders .... 46		Lloyd, A. S. .... 25	Silicated Carbon Filter Co. <i>Text 682</i>
		Lofthouse & Saltmer. .... 42	Silverlock, H. .... 6
Baelz, R., & Co. .... 13	Felton, Grimwade & Co. .... 38	London Homoeopathic Hospital and Medical School .... 4	Sinclair, Tweedle & Co. .... 50
Barnett & Foster .... 10	Ferris & Co. .... 42	Lowe, O. .... 55	Singleton & Colo (Lim.) .... 13
Barrett, R. H. .... 50	Filoe, E. .... 44	Lozé, A., & Co. (Lim.) .... 10	Smith, Stephen, & Co. .... 54
Barron, Harveys & Co. .... 43	Fink, F., & Co. .... 56	Lucas, O. W., & Co. .... 55	Soul, W. H., & Co. .... 36
Bayley, C. .... 40	Fletcher, Fletcher & Stevenson. .... 57	Lynch & Co. .... <i>Cover</i>	South-West London School of Chemistry and Pharmacy .... 4
Bayley & Co. .... 25	<i>Text 682</i>		Southwell, C., & Co. .... 13
Berkley, J. .... 56	Ford, Shapland & Co. .... 6	Marion & Co. .... 30	Spiro, The, Co. .... 23
Blair's Gout Pills .... 57	Francois Compound Leaves .... 41	Mark, J., & Co. .... 57	Stern, G. & G. .... 7
Blake & Mackenzie .... 5	Fuerst Bros. .... 40	May & Baker. .... <i>Cover</i>	Stevens, P. A. .... 56
Blondeau & Cie. .... 58	Gardner, W. .... 50	May, Roberts & Co. .... 43	Stokes, G. R., & Co. (Lim.) .... 50
Blyton, Astley & Co. .... 27	Gem Glass Co. (Lim.) .... 4	Melin, O. .... 55	Sott, S., & Co. .... 12
Boehm, F. .... 42	Goodall, Backhouse & Co. .... 12	Miller, A., & Co. .... 48	Sumner, R., & Co. .... <i>Cover</i>
Boissy .... 56	Green, R. W., & Co. .... 41	Moller, P. .... 43	
Boord & Son. .... 54	Green, C., & Co. .... 57	Moss, J., & Co. .... <i>Text 632</i>	Taddy & Co. .... 17
Bowdlear, W. H., & Co. .... 49	Greensill, T. S., & Son. .... 56	Mumford, G. S. .... <i>Text 682</i>	Taylor, T. & F. J. .... 12
Bowers Bros. .... 4	Grindley & Co. .... 48	Muter, Dr. .... 4	Thompson, W. P., & Co. .... <i>Text 682</i>
Bragg, J. L. .... 14	Guy's Tonic .... 48		Tomlinson & Hayward .... 30
Bratty & Hinchliffe (Lim.) .... 11	Hamilton & Co. (Lim.) .... 49	Newbery, F., & Sons .... 21	Toogood, W. .... 53
Brett, F. J. .... <i>Coloured Supplement</i>	Hargreaves, Dr. M.K., M.D. .... 5	Noakes, B., & Co. .... <i>Text 632</i>	Townsend, J. .... 5
Branner, Mond & Co. (Lim.) .... 32	Hatrick & Co. (Lim.) .... 23		Treatt, R. C. .... 23
Burgoyne, Burdidge & Co. .... 40	Hay, W. .... 13	Oldfield, Pattinson & Co. .... 13	Truefitt, H. P. (Lim.) .... 22
Burroughs, James .... 54	Hildesheimer & Faulkner .... 5		Tyrer, P. .... 7
Burroughs, Wellcome & Co. .... 29, 30	Hockin, Wilson & Co. .... 47	Palan & Cie. .... 55	
Bush, J. P., Manufacturing Co. .... 14	Hooper, W., & Co. .... <i>Cover</i>	Pattison, G. .... 9	Vaccine Association .... 44
	Hovenden & Sons .... 24	Peake, Allen & Co. .... 31	Vogeler, The Charles A. .... 28
Cadbury Bros. .... <i>Cover</i>	Horn & Son .... 56	Pears, A. & F. .... 31	
Carter, J. H. .... 55	Hyde, Nash & Co. .... 57	Peterson, M., & Co. .... 57	Walker, Troke & Co. .... 43
Obalmers, W. B. .... 52		Phillips, G., & Co. .... 54	Warrick Bros. .... 24
Chnrehill, J. & A. .... 4	Isaacs, I., & Co. .... 50	Potter & Clarke .... 16	Watson & Wates. .... 57
Cocking & Co. .... 38		Poulene Frères .... 31	Wedgwood, J., & Sons .... 24
Colthurst & Harding. .... 48	Jewsbury & Brown .... 25	Prosser, Taylor & Co. .... 31	Wilcox & Co. .... 45
Corsan, J. R. .... 4	Jeyes' Sanitary Compounds Co. (Lim.) .... <i>Text 682</i>	Quilliam, J., & Co. .... 57	Wilford & Co. .... 56
Crowder & Glass. .... 4	Jones & Co. .... 54	Radams' Microbe Killer Co. (Lim.) .... 44	Wolsteneroff & Co. .... 53
	Jordan & Co. .... 43	Rankin, W., & Sons .... 52	Wood, V. .... 43
Davis, J. .... 6	Kav Bros. .... 5	Raphael, J., & Co. .... 6	Wright, Layman & Umney <i>Text 682</i>
Davis, J., & Co. (Lim.) .... 5	Keith, B., & Co. .... 39	Riddough, F. .... 51	Wright, W. V., & Co. .... 40
Dee Carle & Son .... 12	Kemphorne, Prosser & Co. .... 50	Robinson, B. .... 44	Wylys & Co. .... 33, 55
Dee Oil Co. .... 22	Kent & Sons. .... 50	Robinson & Sons. .... 15, 56	
Denaeyer's Peptonoids and Extract of Meat Co. .... 15	Kilner Bros. .... 51	Roeke, Tompsitt & Co. .... 38	Young, R. D. .... 23
Downie B. I. P. Co. .... 42	Lakeman, J. J. .... 56	Rookledge, J. .... 49	
Durrant, G., & Co. .... 57	Lakin, W. H. .... 56	Rowntree & Co. .... 15	Ziemer, B. W., & Co. .... 22
Eade's Pills .... 48	Largen, G. W. .... 13		
Eau de Botot .... 24			
Elliman, Sons & Co. .... <i>Text 682</i>			

## CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." These whose Names do not appear above are published in one of the other issues of this month.

### APOLLINARIS

Apollinaris Co.  
Barnett and Foster  
Chemists' Abrated Waters Association.  
Ellis & Son (Ruthin)  
Franz, Joseph Co.  
Hassall and Co. (Olitric Acid Phospho)  
Hay, W.  
Idris and Co.  
Kimmond and Co.  
Jewsbury and Brown  
Mills and Co. (Bourne)  
Schacht, W., and Co.  
Taylor, T. and F. J.  
[See INDEX ALL]

### DITTO PLANT

[See BYRONES and ESSEXON.]  
Barnett and Foster  
Bratty and Hinchliffe (Ld.)  
Gueret Freres.  
Lozé, A., & Co.  
Tyler, Hayward, and Co

### ACETIC ACID

Dunn and Co.  
Fuerst Bros.  
Morris and Callard (Salts)

### ALKALOIDS

Howards and Sons (Ginsengs)  
Smith, T. and H., & Co.

### ALMANACKS

Blake and Mackenzie  
Davis, J., and Co. (Lim.)  
Hildesheimer and Faulkner  
Kay Bros.  
Silverlock, H.  
Townsend, J.

### AMMONIA

May and Baker.  
White, A., and Son  
Woolley, Sons and Co.

### AGENCIES ABROAD

Acard, Ed.  
Australian Drug Co.  
Boles  
Cocking and Co. (Japan)  
Felton, Grimwade and Co. (Melbourne)  
Fongera and Co. (New York)  
Kemphorne, Prosser & Co. N. & L.  
Lennon, B. G., and Co.  
Levy, Jules  
Norris, Zahn and Co.  
Peake, Allen and Co.  
Prosser, Taylor and Co.  
Roberte (Paris, &c.)  
Roeke, Tompsitt and Co. (Melbourne)  
Sharland and Co.  
Soul, W. H., and Co.

### APPARATUS

Clarke, S. (Food Warmer and Bed Tray)  
Orme, J., & Co. (Scientific)  
Perken, Son and Hayment  
Sinclair, Tweedle and Co. (uss Jet)  
Thompson, O. (Gao-Jet)  
Wedgwood & Sons (Mortars)

### ARTIFICIAL EYES

Bock, Oscar

### SANDAGES

Halley, W. H., and Son  
Robinson and Sons  
Schulze, F. and Co.

### BAKING POWDER

Goodall, Backhouse & Co.

### BEESWAX

Bowdlear, W. H., and Co.

### BICARB. SODA

Branner, Mond & Co., Lim.  
Howards and Sons  
May and Baker

### BISMUTH, PREP.

Hearon, Squire and Francis  
Hewlett and Sons  
Howards and Sons  
May and Baker  
Symes and Co.  
White, Alfred, and Sons

### BOTTLES

Aire and Calder Bottle Co. (Ld.)  
Barnett and Foster  
Barrett, R. H.  
Bratty and Hinchliffe (Ld.)  
Briffitt's (Lim.)  
Gilbertson, H., and Sons  
Hearn, E. A., and Co.  
Isaacs and Co.  
Kilner Bros.  
Mark, J., and Co.  
Potha, H., and Co.  
Shirley, A. W.  
Thompson, Walters, Hole and Co. (Lim.)  
Toogood, W.  
Yeldon, E.

### BLOOD MIXTURE

Lincoln and Midland Counties Drug Co.

### BOTTLE CAPPING

Beach, J., and Sons

### BOOKS

Churchill, J. and A.  
Dr. Hargreaves, M.D.  
Muter, Dr.

### BOXES

Austin and Co. (Cardboard)  
Ayrton & Saunders  
Chalmers, W. B.  
Noakes, B., and Co.  
Owen, J., Jr.  
Parmenter, I. W. & Co. Lim.  
Robinson and Sons

### BRUSHES

Dukas and Co.  
Ellis & Co. (Lim.)  
Kent, G. B., and Sons  
Moseley, David and Sons

### BUTTER COLR, &c.

Johnson and Jurgensen  
Oldfield, Pattinson and Co.  
Hearon, Squire, and Francis  
Tomlinson & Hayward

### CAMPFON

Fuerst Bros.  
Howards and Sons  
Keene and Ashwell (Homoeo-  
May and Baker (pathic)

### CAPSULES

(METALLIC)

Betts and Co.  
Brooks, Peel and Co.  
Melin, O. (Mucine)  
Sanders, H. G., and Son

### CAPSULES

Denonal, J. (Medicinal)  
Duncan, Flockhart and  
Evans, Sons and Co.  
Fornier, Bon and Co.  
Hooper, B., and Co.

### CASTOR OIL

Allen and Hanbury  
Fuerst Bros.

### OSCELA SAGRADA

Duncan, Flockhart and Co.  
Evans, Sons and Co.  
Ferreis and Co.  
Moss, J., and Co.

### CATALOGUE

May, Roberts and Co.  
Sanger and Son

### CEMENT

Kay Bros. (Lim.)

### CHALK PRECIP

Dunn and Co.  
Levermore, Aug., and Co.  
White, A., and Sons

### CHLORIDE OF GOLD

Rowland, L.

### CHLORIDE OF LIME

Government Sanitary Co.  
National Chemical Co.



## PARALDEHYDE

**Zimmermann, A. and M.**  
**PATENT AGENTS**  
Horn and Son  
Thompeon, W. P., & Co.  
**PEPPERMINT OIL**  
Cooking and Co.

**PEPSINE, &c.**  
Burroughs, Wellcome and Co.  
Chasemay and Co.  
Fletcher, Fletcher & Stevenson  
Newbery F. & Sons (Ingilvin)  
Warner and Co. (Lancashire)

**PERFUMERY,  
FANCY SOAPS**

Bayley and Co.  
Biondeau and Cie  
Boehm, F  
Burroughs, Wellcome and Co.  
Chesebrough Manufacturing Co.  
Chiswick Soap Co.  
Cook, E., & Co.  
Dee Oil Co. (Limited)  
Deutschmann and Wronetick  
Durrant, Geo.

Kwen (Soaps)  
Farina, J. M.  
Giraud Fils  
Greensill, T. S., and Son  
Legrand, J.

Mattick and Co. (Lim.)  
 Mann, C. A., and Co.  
 Newbery and Sons (Berdoes\*)  
 Offinger, E.  
 Pears' Soap  
 Price's Patent Candle Co.

Price & Patent Candle Co.  
Boemaringer Manufg. Co.  
House & Co.  
Sainsbury, S. (Lav. Water)  
Shirley, A. W  
Thompson, Walters Hole and  
Co. (Lim.)  
Treutt, B. & C.

Truefitt, H. P. (Limited)  
Warriock Brothers  
West, T. (Okell's Mona)  
Woolley, Sons & Co. (Powder)  
Young, R. D.

Young, R. D.  
**PEROX. OF HYDR**  
Dunn and Co.

**PETROLEUM**

Dee Oil Co. (Limited) (Jolly)  
Grindley and Co. (Jolly)  
Hatriek and Co. (Lucilline)  
Snowdon, Sone and Co. (Jolly)

**PHOTOGRAPHIC**  
Botwright and Grey

Darton, F., and Co.  
Howards and Son (Chemicals)  
Marion and Co.  
Clyde J. and Co.

Perken, Son and Rayment  
White, Alfred, and Sons

**PINE PRODUCTS**  
Burroughs, Wellcome and Co.  
Stern, G. and G.

**PILL MACHINES**  
Palan, N., and Co.  
Pinder, J. W.

**PORCELAIN GOODS**

Toogood, (E.c. Pots, regist.)  
**PILLS (Coated, &c.)**  
Allen and Hanburys

Anderston Apothecaries Hall  
Beecham, Thomas  
Blair's Gout Pills

Eade's Gout Pills  
Evans, Sons and Co.  
Frere, L.  
Hill, A. S. and Son

All, A. S., and Son  
 Holloway's  
 Hooper's  
 Hearon, Squire, and Francis

Newbery and Sons  
Robinson's  
Warner, W. R. & Co. (Coated)  
The Standard Co.

Wyleys and Co.  
**PODOPHYLLIN, &c.**  
Keith, B. and Co.

**PLASTERS**

Evans, Sons and Co.  
Johnson and Johnson  
Mather, W.  
Quilliam, J. and Co.

Quinn, J., and Co.  
St. Dalmas, A. De  
Seabury and Johnson  
Thompson, M. F

Young, H.  
**POLISHING**  
Beckett, S.

Bradley & Bourdas (Albatum)  
Fordham, W. B., and Sons  
(Limited)

Oakey, John, and Sons  
**PRINTING**  
Bowers Bros.

Corsan, J. R. (Glass)  
Cyclostyle Co.  
Ford, Shapland and Co

Hildesheimer and Paulkner  
Silverlock, H.  
Townsend, J.  
Ince and Woolf.

**PUMILINE**  
Stern, G. and G.

**QUININE SALTS**  
Andreas, Oscar, and Co.  
Boehringer, C. F., and Sohne

Howards and Sons  
Kuhn, B.  
Zimmermann and Co.



**PHARM. PREPS.**

Allen and Hanburys  
Barron, Harveys and Co.  
Bayley, C.  
Billault  
Boehm, F.  
Brady and Martin  
Burgoyne, Burbridge & Co.  
Burroughs, Wellcome & Co.  
Chassalins and Co.  
Dee Oil Co. (Limited)  
Deutschmann & Woronicki  
Dunstan, Flockhart and Co.  
Fellows  
Ferre and Co.  
Fletcher, Fletcher and Co.  
Fournier, Bon and Cie  
Franeau, E.  
Giles Schacht & Co.  
Green, H. W., and Co.  
Green, C., and Co.  
Heaton, Squire and Francis  
Hewlett and Son  
Hill, A. S., and Son  
Hooper, B., and Co.  
Howards and Sons  
Jeyes Sanitary Compounds Co.  
Jordan and Co.  
Keith & Co. (Conc. Tinctures)  
Layng, H. C.  
Lorenz, H.  
Martindale, W.  
May and Baker  
Potter and Clarke  
Rankin and Bolland  
Riebles and Co.  
Roberts and Co.  
Salvino, The, Co.  
Sonthall Bros. and Barclay  
Sutton, W., and Co.  
Symes and Co.  
Trommsdorff, H.  
White, Alfred, and Sons  
Willows, Francis and Butler  
Woolley, Sons and Co.  
Wyleys and Co.

**RENNET**

Dunstan, Flockhart and Co.  
Johnsen and Jorgensen  
Oldfield, Pattinson and Co.

**RESPIRATORS**

Lynch and Co.  
Newbery, F., & Sons

**SACCHARIN**

Allen and Hanburys  
Burroughs, Wellcome and Co.

**SALICYLIC ACID**

Burgoyne, Burbridge and Co.  
Fuerst Bros.  
Zimmerman, A. and M.

**SALT**

Stern, G. & G. (Pepealia)

**SALICIN**

Macfarlan and Co.  
Smith, T. and H., and Co.

**SALOL**

Kuhn, B.

**SAUCES, PICKLES**

Goodall, Backhouse and Co.  
Mason, S., and Co. (Lim.)  
T. rer, F.

**SCHOOLS, &c.**

City School of Chemistry and Pharmacy (Lim.)  
Davis, F.  
Liverpool School of Pharmacy  
London Homoeopathic and Medical School  
Manchester College  
Northern School of Pharmacy  
South London School of Pharmacy, Lim.  
South-West London School of Pharmacy  
The School of Pharmacy  
Westminster College

**SBLTIOGENES**

Brady and Hinchliffe, (Ld.)  
Evans, Sons and Co.  
Lynch and Co.  
May, Roberts and Co.

**SHEEP DIP**

Fletcher Bros. and Co.  
Wilkin's

**SHOP FITTERS**

Bowling and Gowler  
Bygrave, J. and W.  
Evans, Sons and Co.  
Hewlett, S.  
Natali, E. (Show Cases)  
Pothe, H., and Co.  
Treble, G., and Co.  
Yates, W. S.

**SOAP**

Ayrton and Saunders  
Bayley and Co.  
Blondeau and Co. (Vinella)  
Obiswick Soap Co.  
Cook, E., and Co.  
Ewan, J., and Sons  
Fordham, W. R., & Sons (Ld.)  
James, F., and Co. (Dermatos)  
Lucas and Co.  
Pearse Soap  
Stern, G. and G.

**SPONGE**

Greenswell Bros.  
Peterson, M., and Co.

**SPECTACLES**

Botwright and Grey  
Derton, F., and Co.  
Perken, Son and Rayment  
Raphael and Co.

**SPIRIT**

Boord and Son  
Burroughs, J. (Pure & Methyl)  
Harvey, J. and W., and Co.  
Jones and Co. (Methyl)  
Macfarlan, A., and Co.  
Phillips and Co.  
Smith, Stephen and Co.

**STAMPS (KUNENK)**

Berkley, J.  
Hickinson, J.  
Pollard, A. W.

**STARCH**

Beckett, S.  
Crichtley (Gloss)

**STOPPERS**

Anstun and Co. (Sprinklers)  
Barnett and Foster  
Sanders, H. G., and Son

**STOVES**

Clark, S., and Co. (Lim.)

**SUGAR**

Gibson, R., and Sons

**SURGICAL**

Ayrton and Saunders  
Bailey, W. H., and Son  
Harcley and Sons (Limited)  
Cocking, J. T.  
Christy, T., and Co.  
Crowder and Glass  
De Luca, G. V.  
Eichmann Bros. and Walsh  
Haywood, J. H.  
Ingram and Son  
Liverpool Patent Linat Co.  
Mestivier and Co.  
Robinson and Sons  
Schulze, F., and Co.  
Schoenfeld Freres  
Still, W. M., and Co.  
Thompson, Walters, Hole and Co. (Limited)  
Wood, F.  
Wood, Vincent

**SULFONAL**

Burroughs, Wellcome and Co.  
May and Baker

**SYPHONS**

Barnett and Foster  
Brady and Hinchliffe (Ld.)  
Favarger and Co.  
Kilner Bros.

**SYRINGES**

Bock, O.  
De Luca, G. V.  
Schoenfeld Freres

**SYRUPS**

Fletcher, Fletcher (Liquors)  
Idris and Co.

**TABLETS**

Corsan, J. R. (advertising)  
Gem Glass Co. (Ld.) (advertising)

**TILL**

Stokes, G. E. & Co.

**TMA**

French and Langdale  
St. Tower St. Tea Co.  
Walker and Dalrymple

**THERMOMETERS**

Galley, W. H., and Son  
Book, O.  
Darton, F., and Co.  
Perken Son and Rayment

**TINS**

Noakes, B., and Co.

**TOBACCO, CIGARS****CIGARETTES**

Peacock, M. & R.  
Singleton and Cole (Lim.)  
Taddy and Co.

**TOILET**

Evans, Sons and Co.  
Fordham, W. B., and Sons (Lim.)  
Glyzine Co.

Mumford, G. S.  
Quelch, H. G.

Salvino, The, Co.  
Truefitt, H. F. (Limited)

Woolley, Sons and Co.

**TOOTH PASTE**

American Toilet Co.  
Jewsbury and Brown  
Sutton, O., and Co. (Block)  
Willson, A. (Hunter's)  
Woods, M. (Arcea)

**TRADE MARKS**

Horn and Son

**TYPE-WRITING**

Pollard, A. W.

**TRUSSES**

Bailey, W. H., and Son  
Colwell, H. M.  
Haywood, J. H.  
Mather, W.

Thompson, Walters, Hole and Co. (Lim.)

Wood, F.  
Wood, V.

**URETHANE**

Howards and Sons

**VACCINATION**

Vaccine Association (Lymph)

**VALUERS AND****TRANSFER. AGENTS**

Berdee & Co.

Brett, F. J.

Crocker, G. B.

Orridge and Co.

**VASLINE**

Chasebrough Manufacturing Co.

**VERMIN KILLERS**

Sanford and Son  
Steiner and Co.

**VINOLIA**

(Superfatted Medical and Toilet)  
Blondeau and Co.

**VETERINARY**

Day and Sons  
Day, Son and Hewitt  
Elliman, Sons and Co.  
James, W. H. (Blisters)  
Lakin, W. H.  
Learner, A. J.  
Rookledge, J.  
Spratts (Dogs)  
Sutton, F., and Co.  
Wyleys and Co.

**WAX**

Wyleys & Co.

**WHOLESALE AND****EXPORT DRUGS**

Allen and Hanburys  
Barron, Harveys and Co.  
Burgoyne, Burbridge and Co.  
Bueh, W., Son and Co.  
Bush, W., and Co.  
Clay, Dod and Co.  
Davy Humphrey, and Co.  
Evans, Sons and Co.  
Evans, Lescher and Webb  
Evans and Sons (Limited)  
Ferre and Co.  
Fox, W., and Sons  
Goodall, Backhouse and Co.  
Harker, Stagg and Morgan  
Heaton, Squire and Francis  
Hewlett and Son  
Hill, A. S., and Son  
Hodgkinson, Treacher  
Clarke  
Loffhouse and Saltmer  
Macfarlan, J. F., and Co.  
Oldfield, Pattinson and Co.  
Potter & Clarke  
Symes and Co.  
Thompson and Capper  
Thompson, Walters, Hole and Co. (Limited)  
Walker, Troke and Co.  
Willows, Francis, and Butler  
Woolley, Jas., Sons and Co.  
Wright, Layman and Umney  
Wyleys and Co.

**WINES, SPIRITS**

Coleman and Co. (Meat and Durrant, G. (Orange) Malt.  
Goodall, Backhouse and Co.  
Idris & Co.  
Miller, A., and Co.  
Robinson, B.

**THE WINTER SEASON IS UPON US**

AND CHEMISTS SHOULD STOCK AT ONCE

**F. NEWBERY & SONS' CHEST PROTECTORS**

Prices for which are as follows:—

	Per doz.	Net.
Single (Fig. 1).—No. 1 .. .. .	£0	6 0
" " 2 .. .. .	0	8 0
" " 3 .. .. .	0	9 6
" " 4 .. .. .	0	11 0
" " 5 .. .. .	0	15 6
" " 6 .. .. .	1	6 0
Double (Fig. 2).—No. 1 .. .. .	0	14 0
" " 2 .. .. .	0	18 6
" " 3 .. .. .	1	2 6
" " 4 .. .. .	1	8 0
" " 5 .. .. .	1	16 0
" " 6 .. .. .	2	4 0
Chest Protectors, Newbery's "The Winter" (Vest Pattern, to button in front, Fig. 3). Double only, scarlet		
No. 1 .. .. .	0	18 0
" 2 .. .. .	1	4 0
" 3 .. .. .	1	10 0
" 4 .. .. .	1	16 0
" 5 .. .. .	2	2 0



Single



Double.



"The Winter."

**F. NEWBERY & SONS' RESPIRATORS**

Have been known to the Trade for many years as thoroughly reliable, and as being safe and effective in use.

Prices.		Per doz.	Net.
Retail 1/-	Cork .. .. .	£0	7 0
" 1/-	Metallic .. .. .	0	7 6
" 1/6	" .. .. .	0	10 0
" 2/-	" .. .. .	0	14 0
" 2/6	" .. .. .	0	17 0
" 3/6	" .. .. .	1	7 0
" 5/-	" .. .. .	1	16 0
" 6/-	" .. .. .	2	5 0
" 8/-	" .. .. .	2	17 0

No. 1 Counter Case, of 1 doz. assorted, viz. 3 at 1/-, 1/6, and 2/6, and 2 at 3/6, and 1 at 6/- each retail. Per case, 17/- net.

No. 2 Counter Case, of 1 doz. assorted, viz., 4 each 1/-, 1/6, and 2/6 retail. Per case, 11/- net.



Glass Show Case of Respirators.

**F. NEWBERY & SONS, PATENT MEDICINE VENDORS, PERFUMERS, & SUNDRIESMEN**

Established A.D. 1746.] 1 KING EDWARD STREET, LONDON, E.C. [Established A.D. 1746.



# JOHN SANGER & SONS

Patent Medicine  
Vendors,



DEALERS IN  
Druggists'  
Sundries,

**LOZENGES, MINERAL WATERS, PERFUMERY, AND TOILET REQUISITES.**

Chemists will do well to write for our LIST OF WINTER REQUISITES before ordering elsewhere. Attention is also called to a SPECIAL LIST of Cotton Wool, Lint, Corks, Teats, Twines, &c.

Will be issued next month a List of useful and fancy goods suitable for Christmas Presents. Any of these, together with WHOLESALE CATALOGUE AND ADDENDA, sent free upon application.

**TRIAL ORDERS INVITED. A VISIT TO SHOW ROOM CONFIDENTLY SOLICITED**

*Agencies of all kinds undertaken upon the most favourable terms.*

**Warehouse & Show Room: 489 OXFORD STREET, LONDON, W.**

**DR. JOHN FRANCIS CHURCHILL'S INHALANT**



REGISTERED.

# "SPIRONE"

TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

**DISEASES OF THE LUNGS, WINDPIPE, NOSE, AND THROAT,**

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

**COUGHS AND COLDS, ASTHMA, BRONCHITIS,**

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

**PREPARED ONLY BY THE INVENTOR.**

Note Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottles on the Label over the Cork, and on the Wrapper,

**JOHN FRANCIS CHURCHILL, M.D. (Paris),**

*The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.*

**Price 4s. 6d. and 11s. per Bottle.**

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

**THE SPIRONE COMPANY, Lim., Depot—17A Duke St., Manchester Square, LONDON, W.**



# SEASONABLE NOVELTY!!

---

Chemists will do well to obtain either from us direct, or their Wholesale Houses, a box of  
our

## GLYCERINE AND PAREGORIC PASTILLES.

These Goods have the recommendation of being a distinct novelty, neat in appearance, excellent in quality, and reasonable in price. They are packed in boxes of 8 lb. capacity, and to facilitate the sale, a liberal supply of handbills and window-tickets is supplied with each package.

Price 1s. 8d. per lb.

---

## BLYTON, ASTLEY & CO.

Eagle Laboratories, MANCHESTER.





THE CHARLES A. VOGELER COMPANY  
45 FARRINGTON ROAD LONDON E.C.

THE accompanying Illustration represents the first page of Cover of our forthcoming Book, 48 pages, size  $8\frac{1}{2}$  by  $4\frac{1}{2}$  inches. The first edition, now on order, will consist of One Million Copies. This Book is original, highly illustrated, clean worded, interesting, attractive, and superior in every respect to any Book we have published before, excepting "DO YOU KNOW HOW TO COOK FISH?" which has had and is having an unprecedented sale. The Book,

"A SOUVENIR,"

will be distributed from our celebrated four-in-hand Coach by a thorough and systematic house-to-house distribution, in such towns as the Coach visits during the year 1891. In addition to the one million Books distributed, we propose to send free to Chemists who apply to us, and who will undertake to use same to our mutual advantage, a supply of the Books, with name and address printed on. Where Dealers can name a London House for enclosure or give us the name of a carrier with whom they have a contract, we shall be greatly obliged if they will do so.

We shall begin to make delivery on January 1st, 1891; all orders we receive

from now on will be numbered as received, and delivered according to numbers as fast as we are able to print name and address on. If the Dealer, in addition, wishes for Show Cards, Picture Cards, Panel Transparencies, or our 4-oz., 6-oz., and 8-oz. Counter Wrappers, these should be specified. (Counter Wrappers will not bear Dealer's name.)

p.p. THE CHARLES A. VOGELER COMPANY,

WILLIAM E. GEDDES, European Manager.



# WE CHALLENGE COMPARISON

## AND WILL SUPPLY SAMPLES

OF

# SOLUBLE "TABLOIDS" OF COMPRESSED DRUGS,

## GRATIS!!

It is now some **THIRTEEN YEARS** since we had the pleasure of introducing "Tabloids" and "Tablets" of Compressed Drugs to the Medical Profession and Chemists of Great Britain, and during that time we have been able to gradually improve the machinery employed for the manipulation of the drug, so that the "Tabloids" are not to be surpassed by any of the imitation products supplied by manufacturers who have been emulated by the success which has attended the employment of "Tabloids." Some of our friends are possessed of an erroneous notion that the "Tabloids" are equalled by their compressed goods; such, however, is not the case, for it is generally conceded by Medical Men and Pharmacists alike that the "Tabloids" are still in the first rank, and are recognised as **FACILE PRINCEPS** for elegant appearance, accuracy of dosage, and uniform therapeutic efficiency. "Tabloids" are now, as they have always been, made with due consideration to the therapeutical indication of each drug. Those for local effect on the mucous surfaces of the mouth and fauces are compressed firmly, so as to dissolve slowly in the saliva and thus bring a concentrated solution directly and continuously in contact with the affected parts. Those "Tabloids" of comparatively insoluble drugs are made to **DISINTEGRATE** (the word we have employed for years) when they come in contact with moisture, and pass out of the stomach as an impalpable powder in a suitable condition for immediate absorption in the alimentary canal. Instances of this class are "Tabloids" of Sulphonal, Salol, Sulphur Comp., Phenacetin, Bismuth Subnitrate, &c. Any pharmacist who would care to test the rapid disintegration of a "Tabloid" of Sulphonal, for instance, can do so by applying for a sample and dropping a "Tabloid" into a test tube containing water warmed to 98 degrees F. This condition is analogous to that of the normal temperature of the stomach. Those in the remaining class are the "Tabloids" of soluble drugs which are readily soluble in water, and are intended for the extemporaneous preparation of draughts, &c.

A few words regarding the position we as wholesale manufacturers occupy. Our pharmaceutical products are those which it is impossible for the dispensing chemist to manufacture without enormous expenditure of capital, and practicable only by those experienced in this particular branch of pharmaceutical work. The preparations we supply bear a good profit to the retailer and entail a minimum amount of trouble to him; as, should he inadvertently get over-stocked with any particular line of goods, we shall be happy to exchange the surplus for those more in demand in his neighbourhood.

As we do an exclusively wholesale business, any suggestions from our friends in the retail trade, will receive our very careful attention.

The following clinical reports, unsolicited, from the Medical Press will conclusively show that the recognition of the superiority and reliability of "Tabloids" of Compressed Drugs is not of recent date:—

*From the BRITISH MEDICAL JOURNAL, June 9, 1888:—*

"Those ('Tabloids') destined for internal administration are less dense and quickly **DISINTEGRATE**, as Bismuth Subnitrate, Manganese Dioxide, Charcoal, &c."

*From the MEDICAL PRESS AND CIRCULAR, August 3, 1881:—*

"The Hypodermic 'Tabloids' are entirely new, and are now introduced for the first time. Each little tabloid contains as a vehicle 1-6th of a grain of Sulphate of Sodium, with Morphia, Atropia, and other alkaloids usually employed for hypodermic medication."

"The use of Sulphate of Soda is an advantage over other vehicles, as it promotes absorption without causing pain or irritation, and acts as a **DISINTEGRATOR**, forming an almost instantaneous solution with three drops of water."

"The 'Tabloids' of Chlorate of Potash, Muriate of Ammonia, and various other drugs for throat affections are vastly superior to the ordinary sugar or paste lozenges, and on account of their very small size may be easily retained beneath the tongue while using the voice."

**BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.**



# REMINGTON'S PHARMACY.

2nd EDITION NOW READY.



There is no work on modern pharmacy which deals so comprehensively with the details of the pharmaceutical art and its appliances as this volume. Its 500 illustrations are most useful aids to the pharmacist in perfecting the practical work of pharmacy.—*Chemist and Druggist*.

Price 21/., subject to 10 per cent. discount.

PUBLISHED BY

**BURROUGHS, WELLCOME & CO.**

SNOW HILL BUILDINGS, LONDON, E.C.

See Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists.

## WRIGHT'S

Of all Druggists, Wholesale and Retail, throughout Great Britain, Ireland, and Colonies.

From the *Lancet*, Dec. 22, 1886 :—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class, and one class of psoriasis which had resisted all other kinds of treatment speedily got well under the application of the *Liquor Carbonis Detergens*. We esteem it a very valuable addition to our list of skin remedies."

1871 :—"We have tested it, and can affirm its value as a detergent agent. We consider the *Liquor* is an article of great utility."

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies.

PROPRIETORS—

**W. V. WRIGHT & CO., 48 Southwark Street, LONDON.**

## LIQUOR

## CARBONIS

## DETERGENS.

The *Practitioner* of September, 1881 :—"Eczema connected with varicose veins of the leg—also Pruritus Scroti, Lahlorum, and Ani—is best relieved by weak tarry lotions, one of the best of which is *Wright's Liquor Carbonis Detergens*."

P. McLEOD, Colonel R.A., Inspector-General of Ordnance, Ordnance Office Madras, writes Sept. 10, 1887 :—"I can certify that '*Liquor Carbonis Detergens*,' has cured me of a Psoriasis of 21 years, incurred in Burmah, after every effort of such an able skin doctor as Sir Erasmus Wilson had failed."

From the *Medical Times and Gazette* Jan. 19, 1867 :—"We have more than once called attention to the value of this remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22

**TOMLINSON & CO'S**  
CELEBRATED  
6d. 6d.  
**LINCOLN BUTTER POWDER**

Sold by Chemists over 35 years.

BEWARE OF IMITATIONS.

This Original Brand is Well Advertised, and Sells Readily.

STOCKED BY WHOLESALE HOUSES

Boxes, 3d., 6d., 1s., 2s. 6d., and 7s. 6d.

Mint Street Works,  
**LINCOLN.**

## MARION'S PHOTO SUPPLY WAREHOUSE.

MARION'S Britannia Plates.  
MARION'S Instantaneous Plates.  
MARION'S Chloride Transparency Plates.  
MARION'S Bromide Opal Plates.  
MARION'S Portrait Chloride Opals.  
MARION'S French Mounts for Photographs.  
MARION'S Albuminised and Ready Sensitised Papers.  
MARION'S Bromide and Carbon Papers.  
MARION'S Cameras and Lenses.

Agents for Voigtlander's Celebrated Lenses.

**KRUGENER'S PATENT BOOK CAMERA.**

Takes 24 photos; can be carried in the pocket. Reduced Price 45s.

**McKELLEN'S PATENT DETECTIVE CAMERA.**

For plates  $4\frac{1}{2} \times 3\frac{1}{2}$ . The only Camera in which the exact image can be seen on the screen at the moment of exposure. Price £9 9s.

**MARION'S PHOTO OUTFITS.**

From 21s. to £50.

EVERY REQUISITE FOR PHOTOGRAPHY.—

**22 & 23 SOHO SQUARE, LONDON, W.**





ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE, SYDNEY, AND NEW YORK.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & Co.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ.

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

### Literary Contents.

	PAGE		PAGE
Bankruptcy Report .....	630	Legal Reports .....	679
Chemistry of Organic Dyes ..	637	Liverpool and the Pharmacy Bill .....	682
Commentary .....	624	New Companies .....	680
Correspondence:—		Notes on Novelties .....	681
The Pharmacy Bill .....	694	Obituary .....	687
Hop Bitter; Raising Prices; Disintegrating Tabellæ; Stamping Dispensing-scales .....	695	Personalities .....	687
Dispensing Notes .....	696	Pharmaceutical Society of Great Britain:	
Legal Queries .....	696	Evening Meeting in London .....	674
Miscellaneous Inquiries ..	697	North British Branch .....	676
Information Supplied .....	698	Evening Meeting in Edinburgh .....	677
Editorial Notes:—		Pharmaceutical Society of Ireland .....	678
The Pharmacy Bill Discussion ..	632	Provincial Reports .....	659
Salicylic Acid .....	633	Scottish Drug Depot .....	686
French Pharmaceutical News ..	673	Trade Notes .....	680
Gazette .....	673	Trade Report .....	689
Home News .....	672		

### BOOKS FOR EVERY CHEMIST.

WE publish three books which every chemist and druggist who has a wholesome regard for his personal and business interests should not fail to secure. They deal with the analytical, legal, and practical departments of pharmacy. The *analytical* is covered by Mr. B. S. Proctor's "Manual of Pharmaceutical Testing" (2s. 6d., post free 2s. 9d.), which contains easily applied tests for all pharmacopœial chemicals, none of which require the resources of a chemical laboratory—simply the measures, &c., used at the dispensing-counter. The *legal* side is dealt with by Mr. Alpe, of Somerset House, in his interesting "Handy-book of Medicine Stamp Duty," price 2s. 6d. or by post 2s. 9d. The *practical* section of pharmacy, viz. dispensing, is very well looked after in "The Art of Dispensing," which is one of the most popular books in English pharmaceutical literature. It is published at 3s. 6d. and is sent by post for 3s. 10d. Nearly all the wholesale houses stock these books and supply them at the published prices



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

### QUALITATIVE ANALYSIS.

THE subject of the next exercise in qualitative analysis will be a mixture of *three* salts of common occurrence. The mixture is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday, November 19, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday, November 29. Each report should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

### REPORTS.

The powder distributed for analysis in September consisted of potassium oxalate, sodium ammonium phosphate, and sodium pyroborate, or common borax, in equal parts. The calculated composition of 100 parts of this mixture is:—

K	..	..	..	..	..	14.13
Na	..	..	..	..	..	7.63
NH <sub>4</sub>	..	..	..	..	..	2.87
H	..	..	..	..	..	1.16
PO <sub>4</sub>	..	..	..	..	..	15.15
B <sub>2</sub> O <sub>3</sub>	..	..	..	..	..	13.61
C <sub>2</sub> O <sub>4</sub>	..	..	..	..	..	15.94
H <sub>2</sub> O	..	..	..	..	..	30.46
						100.00

Out of the thirty-three students who sent in reports this time, seventeen, or about one-half, made correct analysis of the mixture. The failures to detect constituents of the mixture were as follows:—K<sub>2</sub>CO<sub>3</sub>; Na<sub>2</sub>CO<sub>3</sub>; NH<sub>4</sub>CO<sub>3</sub>; PO<sub>4</sub>; B<sub>2</sub>O<sub>3</sub>; C<sub>2</sub>O<sub>4</sub>; H<sub>2</sub>O.

It will be observed that it was in the detection of the acid radicals that most of the errors arose, although as regards quantity the acid radicals were the most important constituents of the mixture. In the search for the acids several of our contributors added to their difficulties by introducing a complication which, in this case, was wholly unnecessary. Notwithstanding the fact that the examination for the metals had proved that only sodium, potassium, and ammonium were present, they commenced the examination for the acids by boiling an aqueous solution of the powder with sodium carbonate. This proceeding made the rest of the work unnecessarily difficult. It introduced a carbonate without removing anything. The carbonate had to be decomposed before any further progress could be made. The students who gave themselves this unnecessary trouble evidently do not understand why boiling with sodium carbonate is sometimes resorted to. In the ordinary course of analysis it is customary to seek for the metals first. When they have been detected, the next thing to do is to consider what acid radicals could be present having regard to the properties of the substance under examination. If, for example, barium has been detected, and the substance is soluble in water, it is quite unnecessary to apply any test for sulphuric acid or for phosphoric acid. It is then necessary to consider in what way the metals detected may affect



the tests to be employed for the detection of the acids. Supposing silver to have been detected, it is clear that barium chloride could not be used to detect sulphuric acid, because silver chloride would be precipitated. This difficulty might be overcome by employing barium nitrate, but on the whole it is better to remove the silver, and to substitute sodium, the salts of which are all soluble. It is for such a purpose as this that boiling with sodium carbonate is resorted to.

The misapplication of the blowpipe test, which depends upon the use of cobalt nitrate, is a frequent source of error. The test is described in some text-books without sufficient explanation, and students are misled by it. There are certain oxides which are practically infusible in the blowpipe flame, and which are very similar in appearance. It is convenient to have some blowpipe test by which these may be distinguished. The use of cobalt nitrate has been suggested for distinguishing between alumina, magnesia, lime, baryta, zinc oxide, and some others of less importance. These bodies are white, and they are infusible in the blowpipe flame. Each of them in the pure state, when treated with cobalt nitrate and ignited, acquires a distinctive colour. In some cases the coloration is readily interfered with by other bodies. The pink coloration imparted to magnesia, for example, is interfered with by several oxides, by alkalis and by oxides of the earth metals. The blue colour imparted to alumina is not characteristic of that oxide, for certain infusible phosphates assume a similar colour. Under proper conditions the test is, therefore, one which requires care and experience. But when the student is so reckless as to apply the test indiscriminately, the results are often ridiculous. The present exercise afforded an excellent illustration of this fact. An unknown powder was moistened with cobalt nitrate and ignited; it acquired a blue colour: inference—alumina, or possibly a phosphate present. The simple fact being that the substance consisted largely of borax and of microcosmic salt—the two salts chiefly employed for the production, before the blowpipe, of the blue bead so characteristic of cobalt. There are many other fusible substances which would have given a similar result. The test should never be applied to fusible bodies, and it is one that requires careful experimental study before it can be applied with any degree of confidence to substances of unknown composition.

#### PRIZES.

The First Prize for the best analysis has been awarded to  
W. PORTER, 9 Edge Hill, Whitehaven.

The Second Prize has been awarded to  
ROBERT COLLINGWOOD, 11 Sussex Street, Rochdale.

#### Marks Awarded for Analyses:

W. Porter (1st prize) .. ..	100	Milner .. ..	83
R. Collingwood (2nd prize) ..	98	Disp. Stud. .. ..	85
Dexter .. ..	97	F. H. R. .. ..	83
H. Bowden .. ..	96	A. M. E. .. ..	83
Danwer .. ..	96	Seldj .. ..	82
Tartar .. ..	95	A. M. S. .. ..	80
A. W. Sykes .. ..	95	Calyx .. ..	75
Edinburgh .. ..	95	Blue Bottle .. ..	70
A Blowpipe .. ..	94	Bombyx .. ..	65
Carbo .. ..	94	O. Eynon .. ..	60
A. Howard .. ..	94	Venus ad Finem .. ..	57
Cyanthus .. ..	93	Mipore .. ..	55
Creseo .. ..	93	Mona .. ..	53
Dunlop .. ..	93	W. Davies .. ..	50
Eucalyptus .. ..	92	J. T. Bowker .. ..	45
J. C. .. ..	92	Research .. ..	40
Sp. Vini Rect. .. ..	92		

#### TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

CYANTHUS. The cobalt-nitrate test should never be applied to a substance readily fusible in the blowpipe flame. This test has a very limited application.

J. C.—Your work is good, but your report is not so exhaustive as those which have obtained higher places. The aqueous solution of the powder had a distinctly alkaline reaction. Your test-paper ought to be sensitive enough to detect the alkalinity of a solution of borax.

F. H. R.—Closer observation would have shown that when the powder was heated with strong sulphuric acid, carbon dioxide was evolved. The powder also effervesced with dilute acids after it was heated, but not before. These reactions pointed to an oxalate.

A. M. E.—Your failure to obtain a precipitate with ammonium molybdate was no doubt due to your having employed too little of the molybdate solution. Unlike most other tests, the reagent in this case ought always to be in excess. It is therefore better to reverse the usual operation, and to add 4 or 5 drops of the solution to be tested to about double the quantity of the ammonium molybdate solution. The mixture should be warmed to about 40° C., not boiled. The reaction is a very delicate one because 1 part of phosphoric anhydride produces upwards of 30 parts of ammonium phospho-molybdate in the form of a yellow crystalline precipitate.

SELDJ. See above remarks to A. M. E.

A. M. S.—If you had tried the effect of an acid upon the powder after ignition, you would have found that it effervesced; this, along with the change of colour that you observed, pointed to an oxalate. Oxalates of metals whose carbonates are not easily decomposed by heat—the alkali metals, for example—yield carbonates on ignition.

CALYX.—You concluded that boric acid was absent because you obtained with calcium chloride a precipitate which was not completely soluble in ammonium chloride. It did not dissolve because an oxalate was also present. Both the burning alcohol and the turmeric-paper tests gave decided reactions for boric acid.

BLUE BOTTLE.—When the powder was heated some ammonia was evolved, and was readily recognised by smell and by test-paper. A negative result in the preliminary examination ought not to prevent you from seeking for ammonia by the calcium hydrate or caustic alkali tests.

BOMBYX.—You have made a fairly good beginning. The analysis of a small quantity of substance is a better test of skill than the analysis of a large quantity; it is also better practice. There was no difficulty in precipitating the potassium as potassium-platinic chloride. See remarks to F. H. R. and A. M. S. It is necessary to apply in the regular course for the samples for analysis.

O. EYNON.—Barium borate and barium phosphate are both soluble in acids; consequently, if the solution to which you added barium chloride contained more nitric acid than was required to neutralise its alkaline reaction, no precipitate would be produced.

VENUS AD FINEM.—You report a citrate present, notwithstanding the fact that you did not observe carbonisation when the powder was heated, nor a smell like burnt sugar. The boiling with sodium carbonate preparatory to testing for the acids was quite unnecessary, considering that you had ascertained that alkali metals only were present. Calcium chloride gave a considerable precipitate in a solution of the powder acidulated with acetic acid.

MINORE. You added calcium sulphate to an aqueous solution of the powder, and, having obtained a precipitate, you regarded this as a confirmation of the presence of strontium. The solution contained both an oxalate and a phosphate, either of which would have given a precipitate with the calcium salt. If the precipitate which you say was produced by ammonium carbonate had consisted of strontium carbonate, it ought to have given the crimson flame reaction so characteristic of strontium.

W. DAVIES.—Most of our correspondents detected ammonia by smell when heating the powder in a dry tube. Boiling with sodium carbonate before testing for the acid radicals is resorted to for the purpose of substituting sodium for metals which would interfere with the tests to be applied. When there are no such metals present, the operation is obviously unnecessary.

J. T. BOWKER.—Your work was not sufficiently exhaustive. You should endeavour to prove every metal or acid radical of ordinary occurrence either present or absent.

DOUBLE-REFINED PAREGORIC.—An Ohio correspondent of the *Druggists' Circular* has found a label on a bottle which set forth that the contents were "special strength, double-refined paragoric." The medicine was obtained from a grocery-pharmacy, and the bottle was one used for flavouring extracts, and it had been diverted to other purposes by the insertion of the word paragoric.



## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.*

### BRISTOL.

THE PHARMACY BILL.—A meeting of the chemists and druggists of the locality was held on Tuesday last, at the University College, Bristol, to discuss the "Draft Pharmacy Act Amendment Bill." Mr. J. W. White, President of the Bristol Pharmaceutical Association, was voted to the chair, and Mr. Schacht acted as secretary. The chairman said the Bill might be described as in some respects a modest measure. Its framers had apparently proceeded on the belief that it was better to make tolerably sure of a little beneficial legislation than to risk a more ambitious scheme, and perhaps get nothing. Probably the Bill would not satisfy the aspirations of the trade; but it was to be feared that the yearnings of the struggling druggist were ever toward the attainment of a monopoly more or less complete in the sale of drugs, and, considering the condition of pharmacy in nearly all other civilised countries, one could not feel surprised at this longing to share the advantages enjoyed abroad. In England, however, it was hopeless to attempt legislation on those lines. It was useless to introduce to our legislators any project that could not be distinctly shown to make for the good of the entire community rather than for the benefit of a small section. After briefly reviewing the clauses of the Bill, which he said were calculated to be of material service to the trade, Mr. White proposed, and invited discussion upon, the following resolution:—

That this meeting declares its cordial approval of the provisions of the draft Pharmacy Act Amendment Bill, and promises support to the Council of the Pharmaceutical Society in its efforts to pass it into law.

The resolution was seconded by Mr. Berry.

The discussion was continued by Messrs. Stroud, Plumley, Turner, Chandler, Keen, and Williams. The chairman then called upon Mr. Schacht to explain the views of the Council of the Pharmaceutical Society on some of the points raised.

Mr. Schacht said he was glad to find in the discussion that had taken place a general approval of the proposed Bill as far as it went. With regard to some of its suggested deficiencies, he wished to say that he sympathised with them very much himself, and believed that many of his fellow Councillors of the Pharmaceutical Society did so with equal earnestness. He referred especially to the smallness of the penalty against old and repeated offenders, to the limited character of the poison schedule, and to the uncontrolled sale of poisonous patent medicines, and he assured those who had spoken on those matters that they had all been anxiously considered by the Council, and that he believed some, at any rate, were in process of rectification by other and better methods than by fresh legislation. It had been suggested that a clause should be introduced into this Bill making it illegal for any fresh limited company to carry on the business. He was bound to say that he thought it now hopeless to attempt to pass such a clause. The fiat had gone forth that the public safety was secured in the due qualification of the man who dispensed or actually handed over the poisonous article, and the attempt to throw the responsibility of the transaction on the employer of the assistant had failed. Much as some might regret the fact, such was now the accepted view of the Courts, and our only course was to make the best of it. One way of turning it to account had already been named. All alike—pharmacists and companies—must employ registered assistants. If no registered assistant would accept employment except with a registered pharmacist the matter would be settled. This appeared to him an excellent suggestion, and he wished that every examined assistant would adopt it as his rule of life; but a little thought would show that no clause having such an object could be introduced into an Act of Parliament. The subject must remain a

question of moral duty on the part of young pharmacists themselves. Much was now in their hands, and he hoped they would adequately feel their responsibilities. It had been hinted by more than one speaker that pharmaceutical legislation, even including this projected Bill, did not secure to the pharmacist the full privileges to which his sacrifices entitled him. Here he ventured to differ from those who had so expressed themselves. He thought, on the contrary, that, if they gained the exclusive right to vend and dispense poisons, the exclusive right to dispense physicians' prescriptions, and also the right to claim exemption from jury-service, they had good compensation for all their labour bestowed in qualifying. Finally, he would urge upon them all the absolute necessity—moral as well as legal—of making that qualification real and full, so that every professed pharmacist might be worthy of the trust and confidence of the public; and as to the matter formally before them, he hoped all who entertained even strong opinions on minor points of policy would deem it wise at the present moment to ignore them, and to do their best to help the Council of the Pharmaceutical Society to help the trade. The motion was put from the chair, and carried unanimously.

### LEEDS.

CHEMISTS' ASSOCIATION.—The twenty-second annual meeting of this association was held on October 30, Mr. George Ward, F.C.S., president, in the chair. The annual report and financial statement, showing a balance in favour of the association of 9*l*. 8*s.*, were read and adopted, and the following officers and members of the council elected for the session 1890-91:—President, George Ward; Vice-President, E. Yewdall; Hon. Treasurer, S. Taylor; Hon. Librarian and Curator, W. D. Pollitt; Hon. Secretary, F. W. Branson; J. H. Beacock, George Briggs, C. G. Catterall, P. Jefferson, R. Reynolds, G. W. Norfolk. The next meeting of the association will be held on Thursday, November 27, at the Philosophical Hall, Park Row, at 3.30 P.M., to discuss the "Draft Pharmacy Act Amendment Bill." Members of the trade of Leeds and district will be invited. Mr. Michael Carteighe, President of the Pharmaceutical Society, has accepted the invitation of the council to be present.

### LIVERPOOL.

PHARMACEUTICAL STUDENTS' SOCIETY.—At the third meeting of the session, held on November 6, a paper was read by Mr. J. R. Johnson, Ph.C., on "Protophyta." The author showed the analogy between the most elementary vegetable and animal organisms and the difficulties experienced by biologists in assigning them to their proper kingdoms. The characters necessary for referring an organism to either kingdom were then sketched out. The paper proceeded to deal more fully with each class of protophyta, tracing some of the various forms in the scale of development. The paper was illustrated with lantern slides.

### MANCHESTER.

MANCHESTER PHARMACEUTICAL ASSOCIATION.—At this society's second meeting of the session, held on Wednesday night at the Chemical Club, Victoria Hotel, Mr. H. Kemp in the chair, a discussion took place on the subject of "Stamped medicines and proprietaries and the poison label," of which we hope to furnish a short report in our next.

ALLEGED ADULTERATION OF CITRATE OF MAGNESIA.—To the Cheshire County Council, at its meeting last Friday, Mr. J. Carter Bell, the county analyst, presented a report on his work for the quarter ended September 30, in which he stated that out of 31 samples he had analysed three were adulterated, including one citrate of magnesia, as to which it was observed that it was "adulterated with sugar and carbonate of soda." It may be remembered that Mr. Carter Bell made a similar statement in a report he recently presented to the Town Council of Salford, and some of the members of our local pharmaceutical association found fault with him for doing so, stating that it was not pretended that what was analysed was pure citrate of magnesia. In conversation with our Manchester correspondent, Mr. Carter Bell defended himself by saying that the samples were



brought to him in the ordinary course by the inspectors under the Food and Drugs Act, with the information that they were samples of what was being sold as citrate of magnesia, and on analysing them he found that, instead of containing citric acid and magnesia, they were a compound of Epsom salts, sugar, carbonate of soda, and tartaric acid. Under such circumstances, he thinks he has no option but to report the adulteration he discovers. He suggests, however, that the difficulty might be got over by calling the mixture "Effervescent compound," or something of that kind.

### SHEFFIELD.

**THE PHARMACY BILL.**—A meeting was held on Wednesday evening, at the room of the Sheffield Pharmaceutical and Chemical Society, of the chemists and druggists in Sheffield and district to discuss the draft of the Pharmacy Act Amendment Bill. The chair was taken by Mr. J. H. Bradwall, President of the Association, and nearly thirty of the best-known chemists of the town were present.

The chairman, in opening the meeting, said the 1888 Act had now been in operation some twenty-two years, and the Council of the Pharmaceutical Society had come to the conclusion that it was high time there was further legislation. He believed that opinion was generally held by the chemists and druggists throughout the United Kingdom. The Act of 1868 had been called "The Poisons Bill," and the draft Bill had been described as the Curriculum Bill. They had read it, and were of the belief that it deserved the name of Pharmacy Bill. He hoped the Bill would receive their best attention, as it dealt with the most important subjects they could discuss. As chemists and druggists they were anxious to conduct their business in a manner satisfactory to the public, to the law, and to themselves. (Applause.)

The meeting having decided to go through the Bill clause by clause,

Mr. Job Preston opened the discussion on the first clause by remarking that its object was to make better pharmacists. It was to enforce a curriculum through which every person shall pass who presented himself before the Society for examination, and it would be demonstrated that he had undergone a certain amount of study. He feared, however, that the adoption of the clause would make it almost impossible on the part of country chemists to take any apprentice, as he could not put him through the course of studies which was meditated by the clause. Then they did not know what the curriculum might be in the future. If the ruling body of chemists should decide that they should be strong trade unionists and make stringent regulations with regard to the future curriculum, it would prevent the great mass of the people from joining them as they had hitherto done.

Mr. G. Ellinor regarded it as rather wonderful that they should make so much talk about curriculum. Both the medical and dental professions had curricula, but they did not make so much noise about them. (Hear, hear.) Both took apprentices, and he did not see why their members should not establish schools as had been done in medicine and in dentistry. (Applause.)

Mr. Haining quoted from the clause to show the reasonableness of the curriculum, and said he thought its terms must have been overlooked.

Mr. Newsholme remarked that if their body were to advance they must do something to merit the confidence of the people. Mr. Preston had more than once held up the curriculum as a bugbear to the members of the trade, but he failed to see any hardship in it.

Mr. J. T. Dobb did not think they were beset by any difficulties that did not apply to every scientific society. (Hear, hear.) The object of the Pharmaceutical Society had been to establish what they had in Sheffield—centres of education where their students could obtain a thorough scientific knowledge of their business. The carrying-out of such a scheme would render unnecessary a great amount of expense which students had incurred in going to London. (Applause.)

On the motion of Mr. W. Ward, seconded by Mr. Newsholme, the clause was approved.

Clauses down to 5 were agreed to without discussion.

Mr. Learoyd moved the adoption of clause 6, which he

characterised as one of the greatest steps in advance pharmacy had ever made. He regretted that some such measure had not been introduced years ago. He proceeded to argue in favour of putting all the members of the trade on the same footing; and while admitting that it would be an act of graciousness, and even of condescension, on the part of the Pharmaceutical Society to take such a step, it would, by doing so, become a real power in the land. Let them take all the men who were fully qualified for their business, and include them in one fold, and let all seek to progress together. (Hear, hear.)

Mr. Lodge, in seconding the motion, reminded them that the Pharmaceutical Society held out the hand of fellowship to those associates who had been in the trade for five years.

Mr. Appleton supported the clause, as it removed one of the reasons why he withdrew his annual subscription to the Pharmaceutical Society.

Mr. Ellinor voted for the clause on principle, but did not think, as pharmacists, they were to blame for what had been done. He reminded them that it was the chemists and druggists who left their child, and had not occupied places on the Council as they ought to have done. If the Bill passed into law, he hoped associates would come in and take their places on the Council and share in the responsibilities of the position.

Mr. Dobb contended that if there was one thing for which pharmacists and chemists and druggists ought to be thankful, it was for the action of the little coterie of members in Sheffield who protested against the action of the Pharmaceutical Society and prevented it from riding rough-shod over them alike in imperial and general legislation. (Hear, hear.)

Mr. Furness asked if Mr. Dobb was in order in discussing ancient history.

The chairman said Mr. Dobb was in order.

Mr. Dobb descanted even more eloquently upon the reforms which he and others inaugurated twenty years ago, and said the doors had been open three times since then. They were now open again, and he urged that they should secure all that was offered. (Applause.)

Mr. Furness expressed a great amount of satisfaction with the clause, as it recommended a principle he had long been anxious to see adopted, and which he had assisted to bring prominently into the arena of pharmaceutical politics. At the same time he disagreed with the proposed constitution of the Council, and as an amendment moved that that part of the clause should be deleted. The associates greatly outnumbered the pharmacists, and he hoped the stigma placed upon them in the clause would not be allowed to remain. Why it should have been so offensively introduced he could not understand, as it reflected upon the largest class in the trade, and the class who contributed by far the greatest amount to the funds of the Society. He saw no reason why they should not be in a majority on the Council.

Mr. Wood seconded the amendment.

Mr. Dobb asked how many members of the Pharmaceutical Society there were, and how many associates?

Mr. Ward replied that the latter were in a decided majority. When he went through the clause he thought it an exceedingly liberal one. It admitted as associates those who at present had little or no power to become members, and it placed them in a position to sit on the Council. He regretted an amendment to it had been moved.

Mr. Learoyd thought that the associates were entitled to a larger representation on the Council.

Mr. Newsholme said there were about 4,000 inside the Society, and 10,000 outside. He argued that it was only just that those who founded the Society, and who had since carried it on, should retain a majority of the representation on the Council.

Mr. Furness, in replying on the discussion, advocated the throwing open of elections, and allowing the trade to send as representatives to the Council whom it would.

On the vote being taken, five voted for the amendment. The resolution was carried by a considerable majority.

The seventh clause was, on the motion of Mr. Ward, seconded by Mr. R. Watts, carried with a brief discussion.

Mr. J. M. Furness, although he would not oppose the clause, did not consider it an ideal one. He did not admit that logically the permission to executors of a deceased



chemist to carry on with a qualified assistant involved a similar concession to limited companies. In his opinion it was cowardly not to attack the limited companies, and it would be better to lose the widows clause, or modify it so as only to allow widows to carry on for a limited period, until a deceased man's affairs were wound up, rather than permit chemists and druggists to be hampered, and the public endangered, by the establishment of these companies.

Mr. Learoyd pointed out that the President's argument in relation to the competition of the stores had reference to their capacity as tradesmen, rather than to their professional status.

The clause was then carried, and the subsequent clauses having been approved,

Mr. Preston moved a resolution formally approving the draft Bill, expressing the opinion that the Council deserved the support of the entire trade, and pledging the meeting to do all they could to further the passage of the measure. He observed in relation to clause 7 that they were very generous in their care for the public, considering how much they had as a profession to suffer from the competition of the stores.

Mr. Ward seconded the motion, thinking probably that the Bill contained as much as they were likely to get, and that it would be wisest to get what they could although they might have liked more.

Mr. Grierson expressed warm approval of the seventh clause.

Mr. J. M. Furness moved an amendment to the effect that the Council, in their repeated proposals for the amendment of the Pharmacy Act, did not do justice to the trade or to the public by neglecting to insist on the personal responsibility and individual qualification of every person carrying on the business of a chemist and druggist. The amendment further expressed the opinion that an amended Pharmacy Act should contain provision for an unrestricted representation on the Executive Council of all examined men who are in business. He said the chemists and druggists of Sheffield were not so unanimous on this subject as that meeting would lead them to suppose.

Mr. J. T. Dobb seconded the amendment, which was then put. Only seven voted for it, and the original resolution was carried by a large majority.

A vote of thanks to the chairman closed the proceedings.

#### IRELAND.

THE PHARMACY ACT, 1890.—A special meeting of the Belfast branch of the Chemists' and Druggists' Society of Ireland was held last week—Sir James H. Haslett, president, in the chair. The meeting had been called to receive a report from the deputation which had been waiting on the Law Committee of the Pharmaceutical Council. Mr. Rankin reported that he and Mr. Shaw, with Messrs. McNeight and Boyd, of the Dublin branch, had waited on the committee at Dublin. Messrs. Evans, Hayes, Wells, and Dr. Burnes represented the Pharmaceutical Society. On the subject of examiners the pharmaceutical representatives at the outset asked had the druggists done anything definite yet, or had they any programme made out as to the business to be considered. Mr. McNeight replied that the only business properly to come before them was as to examinations, fees, and time. It was agreed that names should not be brought forward, but that this should be left to the Lord Lieutenant. With regard to fees, Mr. Evans said they had drawn out a small clause which, if approved, could be submitted jointly to his Excellency. In this, as framed, the Council sought 1*l.* 1*s.* for examination of the modified grade, 1*l.* 1*s.* for registration, with 10*s.* extra when the examiner had to go to country places. Mr. Shaw inquired if Belfast would be considered a country place, and received an answer in the affirmative. Mr. Boyd said at the last interview he thought it was agreed that Belfast should not have to pay 10*s.* extra, as the Belfast people were clearly of a mind to have an examiner appointed there to conduct the North examinations. Mr. Hayes replied that Mr. Boyd had agreed that any costs the Society were put to in sending the Registrar down should be paid; but Mr. Boyd in part dissented from this. A lengthy discussion followed, without a definite result. Mr. Hayes made a suggestion that if the

Belfast chemists would agree to pay expenses incurred in sending the Registrar, they might be disposed to accept this. The report was discussed by the meeting, and it was resolved that, as much time had been lost and nothing done up to the present, it would be better for each society to put its views before the Lord Lieutenant. The Belfast view was that the fees to be paid should be 1*l.* 1*s.* for registration, 10*s.* 6*d.* for examination. It was also proposed and agreed to that the names of Dr. Whittle and Dr. Burden, along with Dr. Tweedy (Belfast), should be submitted to his Excellency, for the appointment of examiner at Belfast. It was also agreed that as the printed schedules for declarations sent out by the Pharmaceutical Society demanded more than the Act required, the Society should print others in accordance with the Act, with instructions for members making application for registration or examination. It was also agreed to send out a circular to all the members, giving an explanation of the Act, and also asking their assistance financially, so that the year now closing might find them in a good position.

#### SCOTLAND.

##### EDINBURGH.

A PHOTOGRAPHIC EXHIBITION is to be opened in the Royal Scottish Academy Galleries on Saturday (to-day.)

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—An open meeting was held at 36 York Place on November 5, at 9.15 p.m., Mr. Donald McEwan, President, in the chair. The principal business was the report of the Association prize competition. Four competitors had entered for examination, and had done creditably. The first prize (value 2*l.* 2*s.*) was awarded to Mr. Alexander Murray, 139 Princes Street, with 95 per cent. of marks; second, to Mr. Alexander Cruikshank, 56 Newington Road, with 90 per cent. of marks; and third prize to Mr. William Smith, 119 George Street, with 86.5 per cent. of marks. Mr. Murray was the only one to send in an essay on the botanical excursions, and it obtained the special prize offered by the secretary. Mr. J. B. Stephenson, chairman of the Board of Examiners for Scotland, presented the prizes to the successful candidates, the first prizeman receiving a class ticket for Dr. Stevenson Macadam's lectures on chemistry, and a copy of the British Pharmacopoeia; the second prizeman Bentley's "Structural Botany," "The Art of Dispensing," and Balfour Stewart's "Physics"; and the third prizeman Squires' "Companion." Mr. Stephenson said it gave him great pleasure to accede to their request that he should present these prizes. It was a deeply interesting thing for an older man to come among a company of younger men. He never did so without being reminded of the saying of an aged statesman by which he had been greatly struck at the time it was uttered, a few years ago. He had said he never viewed an audience of young men without being filled with a strong feeling of yearning induced by the thought of the infinite possibilities of good and success, or of failure and dissatisfaction, wrapped up in the life of each individual. He did not feel disposed to say much in the way of advice. They had abundance of that in the numerous inaugural addresses which appeared at this season. He always read these addresses with much interest, and of all that had recently appeared he would commend to their thoughtful attention the address given to the Dundee Association by Mr. Storrar, of Kirkcaldy. There was just one point on which he would venture to say a single word. It would be observed that in all these addresses a very high ideal was set up at which they were invited to aim. They must have felt sometimes that such ideals were very ideal, and therefore difficult to grasp. He thought it was a great advantage to have their ideal presented to them in some concrete form. It was easier to feel admiration for real men and copy their example. Therefore he would suggest to them to set before themselves as patterns for imitation, and sources of comfort and hope in moments of weakness and dependency, the noble character and high example of great and good men. There were many such in their own department of science. He would mention such, for instance, as Scheele, Faraday, William Allen, and George Wilson. The remainder of the evening was devoted to the



reading of the prize essay on botanical excursions by Mr. Alexander Murray; a demonstration of the methods employed for the determination of specific gravities, illustrated by scientific apparatus, and also by apparatus extemporised from articles commonly found in all chemists' shops, by Mr. John Findlay; and a series of "Back Shop" experiments, illustrating the detection of copper in extracts, glass-blowing, the separation and recognition of alkaloids, &c., by Mr. J. Rutherford Hill. On Wednesday, November 19, Mr. J. H. Hoseason will read "Pharmacy Notes" before the Association.

GLASGOW.

**THE UNQUALIFIED ASSISTANT.**—Some further correspondence on this subject has appeared in the papers here, but little new has been broached. The final letter is from Mr. Alexander Pollok, Secretary of the Scottish Shopkeepers' and Assistants' Union, who deprecates isolated action on the part of assistants, and dwells on the advantages derivable from membership in his Union, in which masters and servants co-operate to bring about shorter hours and better wages. In the meantime one prominent druggist in town has given notice to his assistants that they must qualify by June next if they are to remain in his service, and there is a veritable rush to local pharmacy classes.

**ASSISTANTS' ASSOCIATION.**—At the meeting held last week Mr. A. Laing was in the chair, and Mr. J. Rohb, President, read an excellent paper on "Sir Robert Christison." Christison was born in 1797. On the paternal side he could trace his descent to one of those old Scandinavian adventurers who effected a forcible settlement in Scotland, while his mother's family came from the Johnstones, a clan of border raiders. Christison once remarked humorously that his pedigree had a pirate at the one end and a robber at the other. Christison's father was Professor of Humanity (Latin) at Edinburgh University. Robert matriculated in October, 1811. At that time there was no provision in the University for giving practical instruction in chemistry. In company with some like-minded enthusiasts Christison rented an attic, which was converted into a rude laboratory, and here the little band made their first acquaintance with experimental work. Graduating with flying colours—his chief examiner being Professor James Gregory, of Gregory's mixture fame—Christison obtained an appointment as house surgeon to the Edinburgh Infirmary at the age of twenty. A visit to London to walk the hospitals there did not impress Christison very favourably with the clinical methods in vogue there, and he went over to Paris to put a little French polish on his Scotch education. There he became the pupil of the famous toxicologist Orfila, and attended the prelections of Dumas, Cuvier, and Magendie. The analysis of opium was the subject set for his examination, and the task was performed to the high satisfaction of his examiner. Curiously enough, opium always held a first place in Christison's esteem, and he was often heard to say that it would outlive all competitors. Returning to Edinburgh, he was soon afterwards elected to the chair of Medical Jurisprudence, but its emoluments not being a sufficient income, Christison was obliged to eke out a livelihood by medical practice. The remainder of his life is a record of hard and productive work. Among one of the first subjects to engage his attention was the condition of the drug trade, which at that time (1838) was virtually uncontrolled. He was always an active and influential supporter of the movement to promote education in pharmacy and obtain legal protection for pharmacists—objects which he steadily kept in view both as visitor to the pharmaceutical examinations in Edinburgh, and in his professional capacity. Christison's best monuments are his "Treatise on Poisons," the first British manual of toxicology, and his "Dispensatory," still one of the evergreens of pharmacy, and one of the most compendious and serviceable works of the kind ever written. Sir Robert Christison was a many-sided character, as active and efficient in social and political as in scientific life. Of a good presence, and with a calm, dignified manner, he was the beau ideal of a teacher and a physician. His naturally robust and athletic frame was preserved in health and vigour up to the time of his death, at the advanced age of 83, by brisk exercise—one of his favourite recreations being mountain-climbing, from which he did not desist until within a short time of his death.

## Home News

**BETTER STICK TO BRICKS.** The directors of the Ashley Patent (Machine-made) Bottle Company (Limited) report that the loss on manufacture and trade for the year ending July 31, 1890, so far as the bottle department is concerned, amounts to 7,727*l.* 19*s.* 1*d.*; from this a profit on the brick-making department, amounting to 853*l.* 2*s.* 4*d.* has to be deducted, leaving a net loss of 6,869*l.* 16*s.* 9*d.* To this loss has to be added 1,120*l.* 3*s.* for interest.

**THE PRESIDENT OF THE PHARMACEUTICAL SOCIETY** has promised to attend a meeting of chemists called to discuss the Pharmacy Bill at Queensberry Hall (opposite Queen's Gate Hall), Harrington Road, South Kensington, at 9 P.M., on Thursday, November 20. The meeting has been called by the Divisional Secretaries of Hammersmith, St. George's, Hanover Square, Chelsea, Fulham, and South Kensington. Mr. Carteighe is expected at Birmingham on Tuesday next, at Leeds on October 27, and at Hull about the end of this month.

**OVERDOSE OF CHLORAL.** Ida Clarke, a domestic servant, residing with her parents in Newbold Street, Leamington, was found dead in bed last week. Deceased had been in service with a family in the town, but returned home on account of severe toothache. Before she left the household where she had been engaged she had a bottle of chloral mixture given her, a dose of which she took on Monday night without procuring sleep. On Tuesday night she took a larger dose, and on Wednesday morning was found dead in bed.

**THE HOMŒOPATHIC PHARMACEUTICAL ASSOCIATION OF GREAT BRITAIN.**—The annual meeting of this society was held on November 5, at the Homœopathic Hospital, Great Ormond Street, London. Mr. J. C. Pottage, of Edinburgh, the President, who was again re-elected, occupied the chair. There was a large attendance of pharmacists from all parts of the country. The annual report was highly satisfactory, both as regards the society's income and the accession of new members. Good and progressive work had characterised the meetings of the session for 1889-90, and it was announced that the International Pharmacopœia was near its completion. The President read a paper on "Kola," giving its history, and its effects upon the natives of Africa.

**MUNICIPAL HONOURS TO CHEMISTS.**—The pharmaceutical mayors for the forthcoming year, as far as we have heard of them, are only four. Mr. Francis Corder Clayton, pharmaceutical chemist (retired), has been re-elected at Birmingham; Mr. Benjamin Robinson, pharmaceutical chemist and British wine maker, has been re-elected at Salford; Mr. Edward Henry Croydon, chemist and druggist, has been chosen mayor of Newcastle-under-Lyme; and Mr. Jonathan Slater, chemist and druggist, has been elected to the mayoralty of Wells, Somerset. The following chemists have been elected on town councils, in addition to those mentioned last week:—Mr. Henry Jones, chemist and druggist, of Mossley, near Manchester, on the Mossley Town Council. Mr. J. B. Parkin, chemist and druggist, at the top of the poll at the Ripon city municipal election, beating the previous records by 54 votes. Mr. Martin Collins, chemist, as Town Councillor for the newly incorporated Borough of Nelson, Lancashire. Mr. E. G. R. Watson, chemist and druggist, on the Town Council of Beccles.

**WEIGHTS AND MEASURES.**—The Board of Trade have just published their report on the Weights and Measures Acts of 1879 and 1889. Places are named where the Board have given the statutory approval of inspectors and outfits, and other places which have applied for such approval. The names of 57 inspectors who have gained certificates, is published and it is stated that about 25 per cent. of the candidates had been rejected. Certain new denominations have been authorised for use in trade, and the Standards Department have in the verification of such measures adopted the following weight of a cubic inch of water:—One cubic inch of distilled water freed from air and then weighed against brass weights in air at the temperature of 26deg. Fahr., the barometer being at 30in., weighs 252.286 grains.



New by-laws enacted by several boroughs and counties are published.

**SELLING A BUSINESS.**—At the Folkestone County Court last week, before Judge Selfe, George Jones sued J. H. Roberts for 12*l.* 17*s.* 2*d.* There was also a counter-claim. Plaintiff said in March last he was carrying on a chemist's business at Langport, in Somerset, and engaged the defendant at 24*s.* a week salary, and 5 per cent. on the takings. In April and May negotiations were entered into for the purchase of the business by Roberts, and an agreement was prepared by a solicitor for the purchase. A disagreement followed, and Roberts refused to have anything to do with it. On June 30 he went to Langport, and saw Mr. Roberts as to the takings. An account produced was made out. The receipts showed 26*l.*, and the expenditure left a balance of 12*l.* 17*s.* 2*d.* due to him. It appeared in the course of the case that, after Roberts had refused to buy the business for 200*l.*, as he had at first intended, it was subsequently sold to someone else for 85*l.* In this sale was included a clock, which Roberts had put in the shop. Ultimately the judge allowed the defendant 10*l.* 15*s.* for his clock, and 24*s.*, a week's wages, which, set against 12*l.* 17*s.* 2*d.*, made the parties nearly level.

**THE "DARKEST AFRICA" CONTROVERSY.**—Lieutenant Troup, who was one of the officers serving with Stanley's rear-guard under Major Barttelot at Yambuya camp, recently told an interviewer that "the medicines at Yambuya were almost worthless, and those of any avail were insufficient in quantity." Messrs. Burroughs, Wellcome & Co., who supplied the therapeutical equipment of the Stanley Expedition naturally objected to this statement, and have addressed a letter to the papers which published the Troup interview, in which they point out that they exercised the greatest care in the selection of pure drugs; and to secure the highest degree of permanence, activity, and portability, compressed the drugs into tabloids. The outfit was not an experiment, for they had previously supplied Mr. Stanley with compressed tabloids for his Congo Expeditions, and in making up this equipment they were guided by Mr. Stanley's suggestions and the advice of physicians of extensive Central African experience. They further call attention to the fact that Mr. Stanley, both in his book "Founding the Congo State" and also "In Darkest Africa," pays high testimony to the value of the medicine supplied, and says: "We all owe a deep debt of gratitude to these gentlemen;" and to Surgeon Parke's statement that "these concentrated medicines and tabloids retained their efficacy throughout the whole journey, and were of the utmost value by reason of their efficacy and portability." Messrs. Burroughs, Wellcome & Co. add that "just before leaving for America Mr. Stanley received from the Congo some of the stores which were sent back from the rearguard camp at Yambuya, and among these is a large medicine-case filled with quinine tabloids and other necessary remedies for that climate. All are in perfect condition, and have never been opened. The case may be seen at our Snow Hill offices." We have inspected it, and, as far as we examined them, found the medicines in excellent condition, considering the history of the chest.

## Gazette.

### PARTNERSHIPS DISSOLVED.

Saul & Clark, Lancaster, surgeons and apothecaries.

White, W. R., & Fazan, C. H., Wadhurst, medical practitioners.

### THE BANKRUPTCY ACT, 1883.

#### RECEIVING ORDERS.

Cooper, John Nield, Hyde, surgeon and late licensed victualler.

Owen, Richard Foster, Holloway Road, Upper Holloway, late of Southport, physician and surgeon.

#### ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Tobias, Henry Ashur, Liverpool, chemical broker, trading with A. J. Tobias as Tobias & Co. Discharge refused.

Tourle, James, jun., Brighton, mineral-water manufacturer's manager, late mineral-water manufacturer. Discharge suspended for 18 months.

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

**A NEW OPENING.**—Carthage, the old city of Dido and Hannibal, is to be turned into a winter resort for invalids and pleasure-seekers. Now for an English pharmacist.

**DRAWBACK ON EXPORTED SYRUPS.**—By Presidential decree of October 27, all syrups, cordials, and preserved fruits containing more than 5 per cent. of crystallisable sugar are to be entitled to the usual sugar drawback. Preparations containing substances liable to interfere with the optic quantitative testing will be excepted.

**EXPOSITION MEDALS AND DIPLOMAS** are at last ready for distribution. In a few days M. Georges Berger is to send official letters to the foreign commissioners-general, inviting them to call at 15 Avenue de la Bourdonnais, and receive the rewards intended for their countrymen. In no case will the medals or diplomas be handed to the individual laureates.

**THE BORDEAUX NAVAL SCHOOL OF HEALTH** was, on November 5, officially inaugurated by Admiral Ribell, in the presence of the director-general of the naval health service, the Archbishop of Bordeaux, several generals, the city municipal council, faculty professors, and other notable persons. The school, it will probably be remembered, is intended for the training of navy physicians and pharmacists.

**COLLEGE OF PHARMACY PRIZES.**—On November 9 the annual commencement of the Paris School of Pharmacy was held, together with the usual distribution of prizes. The faculty awarded one gold medal, worth 300*f.*, and two silver and three bronze medals, accompanied with books ranging in value from 75*f.* to 25*f.* Seven silver medals were given besides as rewards to the most proficient in laboratory work. Bequest prizes amounting in all to 3,800*f.* were offered for the school year just ended; but only three were awarded—namely, the Menier (600*f.*), the Lebeault (500*f.*), and the Desportes (700*f.*) prizes, taken by MM. Feuilleux, Charon, and Gaillard, respectively. For the others no candidates, or none deserving the rewards, presented themselves.

**MUTUAL INSURANCE SOCIETY AGAINST PHARMACY ACCIDENTS.**—A little over 500*l.* having been voluntarily contributed as a reserve fund by a number of pharmacists, several firms, and one pharmaceutical syndicate, the society on October 21 formally organised according to law, and proceeded to business. The following were elected officers:—President, Petit; secretary, A. Fumouze; financial committee, Chassevant, and Milville; also 17 members of the Council. At the same meeting 23 pharmacists sent in their adhesion and dues as participating subscribers. Others of course will follow; so the new association is now fairly launched. May it have many members, and but few poisoning cases.

**THE MEDICINE-STAMP BILL** continues to be the object of endless controversies. The pharmacists, who were the last to move, now begin to make themselves heard. Delegates were sent by the Seine pharmaceutical syndicate to the Minister of Commerce to protest against the proposed measure. In the absence of M. Jules Roche they were received by his secretary, who gave them a hearing. They complained that the tax is unjust because it falls on one class only of citizens; that it will in the end fall on the retail pharmacist, because the manufacturer will not take it out of his profits, and the public will not pay more than the marked price; and, finally, pharmacists are by the law of Germinal, now in force, forbidden making, selling, or advertising secret remedies, and they would like to know whether the proposed law is to repeal that statute. The secretary gave them very fair words, assuring them of the minister's sympathy, but advised them to have the matter adjusted by their representatives in Parliament. The press, secular, pharmaceutical and medical, is not unanimous on the question. The opinion of each paper apparently depends on its advertising patronage, the medical chiefly subsisting on patent-medicine advertisements being most opposed to the stamp duty.



## Pharmaceutical Society of Great Britain.

### EVENING MEETING IN LONDON.

THE attraction at Bloomsbury Square on Wednesday evening was two papers on the chemistry and physiological action of the constituents of commercial salicylic acid, the Research Laboratory being responsible for the former part, and Professor Charteris, of Glasgow, for the latter. A very good audience had assembled, there being about sixty present at 8 o'clock, and they waited patiently until ten minutes past the advertised time before Mr. Bottle, Vice-President, appeared. He was accompanied by Professors Attfield, Charteris, and Dunstan, Drs. Latham (of Cambridge), and Lauder Brunton, and several members of Council. The Vice-President apologised for the President, who did not appear until ten minutes later—he had thought that the meeting was at 8.30. Professor Dunstan had meanwhile made a good beginning with his subject. It was scarcely possible to imagine that

#### THE CONSTITUENTS OF COMMERCIAL SALICYLIC ACID

could have provoked such a lengthy discourse. Mr. Dunstan spoke exactly seventy five minutes by the clock. It was too long by far, and the audience got terribly wearied before he was done. There was a new feature in the shape of a magic lantern, which was used to show the percentages and melting-points of the various crystallisation fractions obtained in the investigation. The lantern was manipulated by Mr. Block, a bright-looking fellow of about eighteen, who did the work for the communication. The outcome of the investigation may be briefly stated as being that the authors (Professor Dunstan and Mr. Block) find that the pulverulent salicylic acid of commerce contains from 5 to 10 per cent. of impurity. Formerly—*i.e.*, in the late John Williams's day—the impurities were ortho and meta cresotic acid; now, however, it is paracresotic acid, and nothing else. The melting-point of pure salicylic acid is  $156.75^{\circ}\text{C}$ ., which is practically the same as Fischer has said it is. The first part of the paper was historical, and was directed to show that the impure nature of artificial salicylic acid has long been known, but no one has accurately determined what the impurities are. From the nature of the process of manufacture, secondary products are bound to be associated with the main product, since the phenol employed contains cresol and other bodies. Moreover, bodies, such as paroxybenzoic acid, isomeric with salicylic acid, may be simultaneously produced. That is theory; but what is fact had not, so far, been proved. Dr. Latham, of Cambridge, was the first to call attention to the pernicious effects of artificial salicylic acid and its salts when administered to rheumatic patients. He recommended the use of the natural acid only. In 1878 Mr. John Williams first demonstrated the presence of a foreign body in the acid of commerce to the extent of 15 to 20 per cent., and showed that it could be purified by conversion into a calcium salt, splitting that up with acid, and crystallising the salicylic acid from alcohol. Mr. Williams did not determine what the impurity was, but suggested that it was oresyl-salicylic acid. In 1884 Mr. Williams told Professor Dunstan that he had separated a second impurity, and specimens of the two, with one of the purified salicylic acid, were deposited in the Society's museum. These specimens have a direct bearing upon this communication, as will afterwards be seen. In consequence of correspondence between Mr. Williams and the late Professor Kolbe, German manufacturers succeeded in effecting notable improvements in the manufacture of the acid, so that for many years it has been produced with only 5 per cent. of impurity.

Professor Dunstan proceeded to criticise at great length the chemical literature of the past few years, so far as it bears upon his subject. Thus Ewell and Prescott proposed to determine the quantity of impurities present (hydroxy-toluic and hydroxylenic acids, they thought) by titrating with centinormal soda solution, and the differences in the saturation-power of the bodies was taken as the index of purity; 15 to 20 per cent. of impurity in the commercial article was what they arrived at. Bernard C. Hesse, with

this and qualitative tests, proved to his own satisfaction that there is in commercial salicylic acid 30 to 40 per cent. of impurities, consisting probably of ortho, meta, and para hydroxybenzoic acids, and ortho, meta, and para cresotic acids. Fischer, in the course of a long paper on the subject, showed that centinormal soda solution is unreliable, but that barium hydroxide gives better results. He also proved that  $156.8^{\circ}\text{C}$ . is the proper melting point of pure salicylic acid, and that cresotic acid can be detected by the behaviour of samples under hot water, as it lowers the melting-point. Pure acid does not melt, but that containing 20 to 30 per cent. of cresotic acid changes to oily drops; 65 per cent. was, however, the largest percentage of this impurity which he found in the commercial acid. Professor Dunstan impressed upon the audience that Fischer did not separate the cresotic acid, and that his melting-point was not sufficiently corroborated. After this the work of Charteris and Henderson was referred to, and this brought the subject up to Wednesday, the net result being that the toxic effect of salicylic acid is due to the impurities contained in it.

Mr. Williams's specimens had been examined, and it was now stated that the 1884 impurity was found to be ortho-cresotic acid, which is very like salicylic acid in natural characteristics. Its solubility is much the same, it gives the violet coloration with ferric chloride, but melts at  $163^{\circ}\text{C}$ . Impure phenol contains orthocresol, and from that this impurity arises. A strange fact about this acid is that when mixed with salicylic acid it lowers the melting-point considerably. Thus equal parts of each (one melting at  $156.8^{\circ}\text{C}$ ., and the other at  $163^{\circ}\text{C}$ .), crystallised from alcohol, gave crystals melting at  $126^{\circ}\text{C}$ . The 1878 impurity was in scaly crystals, like the 1884 in behaviour to solvents, &c., but it melted at  $170.2^{\circ}\text{C}$ . It was submitted to a long process of conversion into lead and silver salts, and precipitation from these by acid, subsequently crystallising from alcohol. It would be tedious to go over the long columns of figures which were placed before the meeting; suffice it to say that the result was that the acid was obtained with a constant melting-point of  $174.5^{\circ}\text{C}$ ., and that it was meta-cresotic acid. This finished Mr. Williams's impurities.

Coming to the acid of the present time, Professor Dunstan, after quoting text-book authorities as to the melting point (they are fairly agreed that  $155\text{--}156^{\circ}\text{C}$ . is the thing), again referred to Fischer's determination, saying that that chemist had not sufficiently investigated the matter to justify him in fixing the melting-point at  $156.8^{\circ}\text{C}$ . It is the fact, however, that the natural acid, as tested in the research laboratory, melts at  $156.75^{\circ}\text{C}$ ., and the subsequent part of the paper proved that this is correct also for the purified artificial acid. Fischer did not make a correction for the part of his thermometer exposed to the cold, and that is where Messrs. Dunstan and Block have got the advantage of him. For the

#### PURIFICATION OF THE ACID

Mr. Williams's lime process was first tried, ordinary "acid. salicylic. pur. pulv." being used, which melted at  $154.5^{\circ}\text{C}$ . This was taken, saturated with precipitated chalk, crystallised (the impurities, being more soluble than calcium salicylate, remain in solution), and the calcium salicylate split up with acid. This acid, fractionally crystallised from water, gave different results, the first fraction melting at  $155.25^{\circ}\text{C}$ ., the fifth at  $156.2^{\circ}$ , and the sixth at  $153.4^{\circ}$ . The first three fractions recrystallised from alcohol came out better— $156.6^{\circ}$ ,  $156.7^{\circ}$ ,  $156.4^{\circ}$ ,  $156.75^{\circ}\text{C}$ ., &c. Other fractions came out less satisfactorily—they were not so sharp; but, finally, a crop of crystals was got which melted at  $151^{\circ}\text{C}$ ., and kept at this after conversion into lead and silver salts and reconversion into acid. It differed, therefore, from both of Mr. Williams's impurities—was, in short, paracresotic acid. Several brands of commercial acid were tried: they all yielded the same impurity, paracresotic acid. The next point was to find how to purify the commercial acid, the lime process being, in the opinion of the authors, unsatisfactory. They got tolerably good results by precipitation with silver, but obviously that would not suit on a commercial scale. Then normal lead acetate was tried, and trouble was encountered with a basic lead salicylate formed in the process, first crystallisations yielding but 55 per cent. of the pure acid. Basic lead acetate was next tried, but when the lead salicylate came to be decomposed in water only, the results were not good; the



addition of alcohol sufficed, however, to effect a yield of 76 per cent. of pure acid in one operation. On the large scale (half a kilo) equally good results were obtained. One objection to the process is that towards the end ethyl salicylate begins to be formed, owing to the presence of acetic acid; for that reason lead carbonate was tried in place of the acetate, and a yield of 75 per cent. was obtained, alcohol being used in the process. Professor Dunstan next spoke of the necessity of producing the acid in large crystals, which can be done by dissolving in 2 parts of water and crystallising slowly. He then summed up, and urged that the acid as described by him should be introduced into the Pharmacopœia Addendum, the description being precise on two points—(1) in distinct crystals, (2) melting-point between  $156.5^{\circ}$  and  $157^{\circ}$  C. After a few hints as to how the melting-point should be taken, Professor Dunstan gave way to

#### PROFESSOR CHARTERIS,

the President stating that, owing to the lateness of the hour, Professor Charteris would only give an abstract of his paper. He had come all the way from Glasgow for the occasion. Having passed a compliment to the Research Laboratory and Professor Dunstan, the Glasgow professor took the meeting into his confidence as to how the rabbits were treated which were sacrificed for this great occasion. Bunny was put on his back on a table, his hind legs drawn back, a little of the skin of the abdomen lifted, and the alcoholic solution of the substances injected. The professor smilingly assured the audience that the alcohol did bunny no harm further than a little temporary excitement. Ten grains of the purified salicylic acid produced no bad effects when thus administered to a rabbit weighing 3 lbs. One which got an injection of two grains of the orthocresotic acid (m.p.  $163^{\circ}$  C., as determined by Professor Charteris) began to breathe laboriously half an hour after; then its hind legs were paralysed, and it died in thirty hours. Two grains of the para acid (m.p.  $151^{\circ}$  C.) produced prostration in another rabbit within half an hour, but not so severe as in the previous case, and the rabbit lived twelve hours longer. The meta acid (m.p.  $174^{\circ}$  C.) produced no unhealthy action in a rabbit when similarly administered. Professor Charteris also referred to the work which he has already done on the subject, and backed up Professor Dunstan's remarks regarding the desirability of having the pure acid in the B.P. Dr. Lauder Brunton had mentioned, at the Medico-Chirurgical Society, that if pure phenol was used, pure salicylic acid would be obtained, but he had tried for two months to make it pure from a sample of pure phenol, and had failed. However, the manufacturer had not, and Professor Charteris showed a specimen.

#### THE DISCUSSION.

Dr. LATHAM, of Cambridge, opened the discussion. He said he could not help feeling most intense satisfaction that the question should at last be placed on an extremely satisfactory basis. He had in 1877 commenced the treatment of rheumatic fever with salicylic acid, and from the first he had used only the natural acid, as he was convinced that, owing to the source of the artificial acid and the possibility of contamination, it could not be given in doses gradually and rapidly increased without bad results. In 1881 there was a good deal of discussion in medical circles regarding rheumatic fever, and just before that he had, in a note in the *British Medical Journal*, pointed out that the artificial acid was not satisfactory. Many others shared the same opinion, and the matter was brought up again in 1885, but always with the same result, which was, in effect, that when a provincial medical man calls attention to a thing, little heed is given to it. It requires a London man to wake up those interested. What he would like to see was that the Research Laboratory should look out for all cases of alleged inefficacy or different action of drugs so stated by medical men, and investigate their constitution.

Dr. LAUDER BRUNTON next spoke, referring to the danger to the heart and brain which followed the administration of artificial salicylic acid in large doses. He thought that there was no question now that that was due to the impurities, and, that being so, was of opinion that the Research Laboratory had by this investigation done a service to medical science which rivalled Koch's in regard to the treatment of consumption; for rheumatic fever caused as

many deaths as consumption, infinitely more misery, and loss of time, work, and energies which was appalling. These statements were accompanied by physiological explanations, which delighted the audience.

Professor ATTFIELD was the next speaker, and he said that his early acquaintance with Kolbe, his connection with the great fight of Von Heyden v. Neustadt, and his relation to the British Pharmacopœia, were naturally things which gave the communication great interest to him; but it was in the last connection that he was called upon to speak, and he reminded the meeting that the B.P. does state that the acid should be crystalline. As to the melting-point, the investigation showed that the Pharmacopœia standard was in accordance with knowledge at the time it was fixed. Professor Attfield then somewhat laboriously proceeded to argue against the introduction of a second acid into the Pharmacopœia Addendum. The proper thing was to correct the melting-point when a reprint of the Pharmacopœia was next made.

Mr. MARTINDALE thought that if a pure salicylic acid was not put in the Addendum, a pure salicylate of soda should be, as that was the article most used medicinally. The acid itself was most extensively used in surgery, and the impurity might not be an objection; but it was highly desirable to have only pure sodium salicylate for internal administration.

Mr. JOHN HODGKIN said he had been looking up authorities on the melting-point of the acid, and found that the majority gave a higher figure than that mentioned by the authors. He quoted some of them ( $157^{\circ}$  to  $159^{\circ}$  C.) to show that Fischer's figures agreed closely with them, and that the balance was in favour of the higher standard. He also reminded the meeting that Fischer had mentioned cresotic acid as the impurity. Mr. Hodgkin did not like the pharmacopœial expression "about  $155^{\circ}$  C." "About" was such a curious term; they did not know what it meant, although he believed that the Chamber of Commerce decided that it was 5 per cent. (Laughter.) Recalling Hartley's experiments, he mentioned that that investigator found that Mr. Williams's natural and purified artificial acids were identical, so far as the absorption-spectra were concerned. Mr. Hodgkin himself thought that the natural acid had a slightly lower melting point than the purified artificial, owing to its contamination with a trace of terpine from the oil of wintergreen.

Mr. HELBING said the new German Pharmacopœia gave Fischer's melting-point  $157^{\circ}$  C., but did not specially mention the crystalline form; so that German pharmacists would welcome the paper. He wanted to know if Professor Dunstan could give a ready test for sodium salicylate, and mentioned that German manufacturers had been experimenting, with the result that they now produced a physiologically pure acid in large crystals. It was a curious fact that paracresotate of soda had been recommended by Professor Demme as an antipyretic. Could Professor Charteris explain how he found paracresotic acid to be poisonous?

Mr. PETER MACEWAN supplemented that remark by saying that Demme had tried the three cresotic acids, and found one of them to be harmless and two lethal. He suggested that there might be no difference between the two professors in regard to physiological results, but that it was only a case of mixing up prefixes.\*

Mr. A. H. MASON said the importance of the subject went beyond the medical aspect. The output of the acid for preservative purposes far exceeded the requirements of medicine, and it was of the highest importance that it had been proved that night that the ordinary salicylic acid contained a poisonous substance, for it had been proved that the acid when added to food-stuffs often produced poisonous effects. There was no difficulty in perceiving where the poison came in. As to the medical question, he thought it could be put concisely as being simply a matter of price. There was a cheap acid, used as a preservative mainly; one at 6d. per lb. more, much used in medicine; and one at 3s. more, which was absolutely pure. There was no difficulty whatever in getting

\* We find, on referring to the paper mentioned by Mr. Helbing that there is no doubt of the fact that it is paracresotate of soda which has been used medicinally. In the paper the melting-point, &c., of the three acids are given, and they are in practical agreement with what Dunstan and Bloek give in their paper. See also *C. & D.* March 22, page 414.



the right thing if pharmacists cared to pay the price for it.

Mr. ARNOLD followed on much similar lines. He had every reason to believe, he said, that German manufacturers were sending out an acid melting at  $156.6^{\circ}\text{C}$ ., and one in crystals melting at  $157^{\circ}\text{C}$ .

Dr. F. W. PASSMORE was called upon by the President, and in response he said the only remark he had to make was that there were ten isomers of cresotic acid. They had heard three spoken about, and we would like to know what was meant by that.

Professor DUNSTAN then replied, touching on almost every point, but adding little new. Sodium salicylate should also be in crystals, he said, and the acid freed from it should have the proper melting-point when fractionally crystallised. Referring to Mr. Mason's remarks, he said he had heard it stated that the intoxicating effect of German beer was not due to alcohol, but to the salicylic acid used to preserve it.

Professor CHARTERIS said he would not attempt to reply. It was raining hard outside, and they had better go home.

After the usual vote of thanks, attention was called to

#### THE EXHIBIT OF SPECIMENS.

The table was adorned with an unusually large number, which were inspected with great interest by the audience, but, owing to the length of the salicylic-acid discussion, the Curator had to confine his observations to a few of the specimens, promising to give some further information at the next meeting. The casarea bark gathered this autumn in Selora county, California, of which our town traveller spoke in a recent interview with Mr. John Moss, was amongst the drugs exhibited; it appeared as a bundle of beautiful bright and rather silvery quills about 8 inches in length. Dr. Traub, of the Java Botanic Gardens, had sent several samples of Dutch Indian drugs of great interest, among them a specimen of *Cubeba officinalis*, showing about 50 cubeb berries on a stalk, the berries standing out almost at right-angles. They were rather bolder, much paler in colour, and possessing longer stalks than those usually seen in commerce in this country. A German firm had sent a specimen of Kaboe cubebs, identified by Dr. Traub as being the fruit of *Piper pothomorphe*; these were very bold black fruit, of pronounced elemi odour. Mr. Thos. Christy showed two specimens of exceptionally large seeds of *Sterculia acuminata* in the fresh state, of nice red colour, and one of them fully  $2\frac{1}{2}$  inches in length. Mr. David Hooper had presented a sample of manna from eucalyptus, in very small but beautifully pure white fragments, and pleasant sweet taste. The same gentleman also sent samples of Pisin-Puttai, or gum bark, from Southern India, and of *Mirabilis Jalapa* tuber cultivated in India; this jalap appears in bolder pieces and has a much more shrivelled surface than the official kind. The gem of the exhibit consisted of a collection of small dragon's-blood samples gathered in Borneo and Sumatra, and for which the museum is again indebted to Dr. Traub. The Borneo dragon's-blood appears in reeds about  $3\frac{1}{4}$  inches in length,  $\frac{3}{4}$  inch in width, and flat, each piece being very nicely tied in a palm-leaf, the ends of which are folded neatly on the one side, while the whole is secured by two small strips of the leaf. The Sumatra dragon's-blood appears in the same kind of packets, but is not tied like that from Borneo. The colour of the latter drug was a pure carmine, that of the Sumatra being not quite so fine in shade. It is remarkable that two other samples guaranteed to be perfectly pure (which was not expressly stated in the case of those just alluded to) showed a much darker brown colour. There was also dragon's-blood in small irregular cakes. Another specimen which attracted much attention was a small sieve made of reed, about 9 inches long and of pyramid shape, the bottom being a square of about 3 inches. In this sieve the ripe fruit of the plant yielding dragon's-blood is shaken, in order to obtain the powder; the fruit itself was also shown, the smallest specimen being only  $\frac{1}{8}$  inch in diameter, and is called by the natives *Djernang Mandai*; the larger sort, being double the above size, are called *Cerolnang*; the smaller fruit is considered the better variety. Mr. Bertie Smith exhibited a sample of *Podophyllum emodi* from India, of which the resin has recently appeared in commerce, and was described in this journal at the time. There were further exhibited two living cubeb-plants—one *Piper Cubeba*, Comet,

having dark-green leaves, and the other being distinguished by a much paler and more delicate-looking leaf. A Mitcham firm of distillers had sent samples of their essential oils of peppermint, camomile, lavender, and rosemary. The samples of peppermint-oil included oil both from the black and white mint; the latter is the more esteemed variety, but it is much more difficult to grow, and yields much less oil than does the black mint, but the distilling firm state that by redistillation the oil from the black plant can be made to equal in every respect that of the white mint. The sample of camomile-oil was distinguished by its beautiful deep blue colour, a shade not frequently met with in English oil of camomile. Camomile-oil distilled from the flowers is known to lose its colour upon exposure to light, but it is said that this sample is an exception in that respect, and that it would show no change even if not kept in a dark place. An exceptionally fine sample of belladonna leaves was contributed by Mr. Umney. Some recent new remedies were also commented upon, Mr. Holmes saying that they become old remedies so quickly nowadays that he could not risk keeping these over until next meeting, which is to be held on December 10.

#### NORTH BRITISH BRANCH.

There was a lively meeting of the executive on Wednesday, all the members being present except Messrs. Lawrence and Maben. Mr. William Gilmour, chairman, presided, and early in the meeting intimated that he wished to postpone the motions of which he had given notice at last meeting and which had reference to Professor Fraser's educational scheme, and the desirability of taking steps to increase the membership in Scotland. This postponement was made in deference to

#### A VISIT OF MR. CARTEIGHE

which is proposed. The only one who cared to object was Mr. Mackenzie, and he was not very pressing. It will be remembered that we stated that Mr. Carteighe had been asked to open the session of evening meetings in Scotland. His reply was that that would not be a proper thing: better to get an outsider to do it, and he could address a meeting of the trade some time when he went down to the Edinburgh examinations. He put it this way in a letter to the assistant secretary: "We want to preach to the outsiders more than to those who are inside. Moreover, I find that the people outside prefer to have an opportunity of airing their grievances, and attack the Society and its President. After that the President can remove some of the cobwebs, and the meeting is a success." When the executive came to consider what should be done, there was much difference of opinion as to how the matter should be gone about. A verbatim report of the remarks would look very foolish in print, and we have no room for that this week. The Chairman said that Mr. Carteighe would expect to be invited to Aberdeen, Dundee, and Glasgow, as well as Edinburgh, and he thought that his presence would greatly help in increasing the membership. The Assistant Secretary, in reply to a question, said the plan was for the local secretaries at the different towns to call a general meeting of the whole trade, and Mr. Frazer thought it was not in the power of the executive to call a meeting of the trade. Mr. Paterson's opinion was that if the executive were to invite Mr. Carteighe down to Scotland they ought to make arrangements for all the meetings. Round these points the discussion gathered, and Mr. Daniel Frazer stated so plainly that Mr. Carteighe was inviting himself that he had to be rebuked by Mr. Watt. Mr. Kinninmont apparently sympathised with Mr. Frazer, but others swept away this cobweb. Then Mr. Kerr, of Dundee, complained that he was present at an inconvenience to himself, and found that the business did not come on. He proposed that the executive should form itself into a committee to invite Mr. Carteighe in due form to come down not only to Edinburgh, but to other towns in which it might be agreeable for him to address meetings of the trade. For himself, and for Mr. Hardie, their local secretary, he would say they would do their utmost in Dundee to make the visit a success. But it should be left to the executive in Edinburgh to make all the necessary arrangements. Mr. Watt did not agree with that;



the local secretaries should take up the matter. Mr. Storrar then moved:—

That the President be asked to visit Scotland, and that instructions be given to the assistant-secretary to this effect: that, as soon as Mr. Carteighe intimates his intention to come, that he inform local secretaries in the various districts referred to, and suggest that a general meeting of the trade be called, at which Mr. Carteighe might be asked to be present.

After some more talk this motion was adopted, it transpiring that Aberdeen was willing to receive Mr. Carteighe, and a little difficulty arising about his expenses, the Chairman explained that Mr. Carteighe paid them out of his own pocket. Mr. Storrar and several other members were inclined to think that Scotch chemists would open Mr. Carteighe's eyes about some things when he goes down—would educate him, in short.

#### BOARD OF EXAMINERS.

The present members of the Board were nominated for re-election by the Council.

#### EXAMINATIONS IN ORKNEY AND SHETLAND.

Mr. Strachan, Aberdeen, said there was one matter to which he desired to direct the attention of Mr. Watt and Mr. Storrar, their representatives at the General Council. From the report of last month's Council meeting, he observed that Douglas and Jersey were to be centres for Preliminary examinations. He did not see, in these circumstances, why Orkney and Shetland should be left out, for they were farther from any other centre; besides, Douglas and Jersey were outside of the Pharmacy Act, whereas Orkney and Shetland were within it. He thought it should be an instruction to them to bring this matter up next year, that they should ask the President, in the capacity which he seemed to exercise, to exercise the same privilege in Orkney and Shetland as in Douglas and Jersey. It took lads over a week to come to Edinburgh or Aberdeen, entailing no small expense.

Mr. Nesbit agreed, and the Chairman thought this was a very sensible suggestion, and he would cordially support it.

The meeting then sat in private.

#### EVENING MEETING IN EDINBURGH.

The first meeting of the session was held on Wednesday, at 8.30 P.M. Mr. Gilmour presided, and the first papers were

#### LABORATORY NOTES,

By D. B. Dott, F.I.C., F.R.S.E.

(a) Arsenic in Sulphuric Acid; (b) Solubility of Lead Sulphide in Hydrochloric Acid; (c) Blue glass. In regard to the first subject, Mr. Dott said that the impurity was commonly known, and it was owing to the arsenic in sulphuric acid that the arsenic in glycerine arose. He thought that it would be interesting to know how much arsenic there was in the acid, and his experiments enabled him to separate 0.1945 gramme as arsenious sulphide from 50 c.c., which is equal to 12 grains of arsenic in a pound of the acid—a very serious impurity.

Speaking of the next subject, he said that hydrochloric acid prevented the precipitation of lead sulphide to a greater degree than is generally supposed, and the result is that students are often puzzled with it. Text-books are responsible for this. Fresenius says that the sulphide is insoluble in cold dilute hydrochloric acid, but Mr. Dott finds that dilute acid prevents precipitation. For instance, a 0.6-per-cent. solution of lead acetate, containing 6 per cent. of hydrochloric acid, gives no precipitate with sulphuretted hydrogen, although it does when further diluted with water. In the third note Mr. Dott said that cobalt glass is not to be trusted for detecting the potassium flames. The trained, unaided eye is better, but flame colour-tests are of little use, unless with single salts. He also showed an air-bath for the determination of melting-points of high-melting substances. This is constructed of copper, with glass front and back. There is an opening in top which admits a cork holding a thermometer. Two brass wires

passing through the sides support a shelf of sheet asbestos. Substances are placed in a thin glass tube attached to thermometer bulb, and lowered above the asbestos. The temperature is gradually raised, and observation made through the glass front. The bath is specially useful for very high points.

There was little discussion on these papers, and the next was a note on the

#### ASSAY OF SCAMMONY,

By Peter Boa.

In assaying scammony by the B.P. test of a certain percentage being soluble in ether, Mr. Boa has observed that in drying the ethereal extract the weight may become constant before the extract is really dry. This is due to the varnishy nature of the extract, which includes some of the solvent even after prolonged heating on a water-bath. The possible error may be from 1 to 3.75 per cent. He recommends that the extract be carefully broken up, so as to let all the ether escape. He gets the best results with 717 ether; the extract obtained by its use dries more quickly, and is not so tough as that obtained when 735 ether is used.

The same author also read a note on

#### THE PHARMACY OF EXALGIN.

In mixtures the author finds that spirit is usually prescribed with exalgin. Sometimes, however, there is not enough of it to keep the exalgin in solution. He finds it soluble in 50 parts of water. Martindale states the solubility as 1 in 60, and this may be taken as correct for practical purposes. The substance is volatile at the temperature of a water-bath. Dissolving the exalgin in spirit and then adding water does not always give satisfactory results. The following mixture is an example:—

Exalgin .. .. .	3ss.
Sp. vini rect. .. .	5ij.
Aq. ad .. .. .	jss.

If the exalgin be dissolved in the spirit, and the water added cold, the exalgin falls out of solution. By dissolving the exalgin in the water by the aid of heat, and then adding the spirit, the solution is permanent. He recommends the use of heat in dissolving the substance. He thinks physicians might order it in tinct. card. co. This would cover the taste, and make sure of a perfect solution. Without heat it requires six hours for 1 part to dissolve in 50 parts of water; with heat it dissolves at once, and remains in solution. Three minims S.V.R. keeps 2 grs. to 5j. water in solution if the substance be first dissolved by heat. In the course of the discussion on these papers, Mr. Dott corroborated the remarks regarding the usefulness of spirit in obtaining a solution of exalgin. This anomalous behaviour was not uncommon in other substances. Mr. J. R. Hill said he had made a solution of exalgin—1 in 40 of water—by heat, and had cooled it down to 40° F. without crystallisation. The Chairman commented upon the usefulness of the communications, and, referring to the Glasgow salicylic acid prosecution, called attention to the fact that the commercial acid answers the Pharmacopœia tests.

ARTIFICIAL AND NATURAL MUSK.—Quinine sulphate possesses the peculiar property of completely destroying the odour of artificial musk, while having no such effect upon the natural product. Sulphur and camphor produce in natural musk a very offensive odour.

TOXICOLOGY is a subject upon which a considerable portion of the boards of pharmacy question candidates in the United States. The *Western Druggist* regards this as highly important. It is a subject of sufficient value to the educated pharmacist to enable him to prevent errors in dispensing and sometimes save the life of a customer in cases of poisoning. In order to be of any practical value to the druggist his knowledge of poisons and antidotes must be in his head and not in books of references. It is true that the pharmacist cannot be expected to study the physiological effects of remedies to the extent that a physician does, but he should know the classes of poisons and the antidotes of most value for his use.



## Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on November 5, at 3 P.M., the President (Mr. Charles Evans) in the chair. There were also present the Vice-President (Mr. Wells), Dr. Burnes, Professor Tichborne, and Messrs. Baxter, Merrin, Sunner (Cork), McCormack, Robinson, Whitla, Grindley, Beggs, Hayes, Hodgson, and Simpson.

The first business was the

### ELECTION OF OFFICERS

for the ensuing year. Mr. Charles Evans was re-elected President, Mr. W. F. Wells Vice-President, and Mr. Hodgson Treasurer. Mr. Evans accepted the presidency on the understanding that he should give up the office next April. Messrs. Hayes and Simpson were re-appointed auditors. All the elections were unanimous, and the gentlemen chosen briefly returned thanks.

### COMMITTEES.

The following were appointed:—

*Law.*—Messrs. Beggs, Grindley, McCormack, Merrin, Tichborne, McNaught, Johnston, Montgomery, and Sunner.

*House and General Purposes.*—Messrs. Beggs, Grindley, Hayes, Hodgson, McCormack, McNaught, and Tichborne.

*Certificates.*—Messrs. Beggs, Hayes, McCormack, Simpson, McNaught, and Sunner.

*Pharmacy Amendment Act.*—Dr. Burnes, Professor Tichborne, and Messrs. Hayes, Sunner, and McNaught.

### EXAMINERS.

The following were elected for the ensuing year:—Preliminary: Dr. E. MacDowel Cosgrave. Pharmaceutical and General Chemistry: Dr. Norman Faulkner. Materia Medica and Botany: Dr. Robert J. Montgomery.

### EDUCATION ADVANCING.

A report of the Examiners stated that at the last October examinations twelve candidates passed and only one was rejected.

The VICE-PRESIDENT: That result shows an improvement of the candidates in chemistry. At the preceding examination eight out of nine passed.

The PRESIDENT mentioned that at the Preliminary examination in October four candidates out of six were successful.

### CARRYING OUT THE NEW ACT.

A report from the Pharmacy Act Amendment Committee was read and signed.

Mr. GRINDLEY asked if the difference with the gentlemen in Belfast as to the allowance to examiners there had been adjusted.

The PRESIDENT: We have received no communication from them since they went home.

The PRESIDENT said the following letter had been received within the last half-hour:—

November 5, 1890.

SIR,—I am directed by the Lords Justices to request that you will be good enough to state if any arrangements have been made by the Pharmaceutical Society under the 12th section of the Pharmacy Act (Ireland), 1875, Amendment Act, 1890. You will also be good enough to say if the Council have considered the question as to the examiners to be appointed under the Act, and if they have arrived at any opinion as to the number that will be required, and the times and places at which the examinations should be held, and also the question of remuneration to be paid to such examiners. Their excellencies will be glad to be favoured with the views of the Council in respect of these matters at your earliest convenience.

I am, &c.,

To the President of the Pharmaceutical Society.

W. B. KAYE.

A reply to the above was drafted and ordered to be forwarded.

A report from the Law Committee was read and adopted. In reference to regulations to be drawn up for the examinations.

The PRESIDENT remarked that a feeling was generally entertained by the members of the Council that they had no right to retain indentures sent in by candidates.

The VICE-PRESIDENT said a resolution had been passed requiring the filing of certificates of apprenticeship, in order that the Council might be provided with the means of detecting any want of *bona fides*. Some of the candidates had been sending their indentures instead of certificates. They always wanted the indentures back, and what was required was a regulation to the effect that only certificates would be accepted, and that these would not be given back.

Mr. BEGGS: A great number of apprentices whose employers are dead, and who, consequently, could not get certificates, might only be able to send their indentures.

Mr. HAYES: In no case have we ever been deceived by indentures. It has only been by certificates. I think indentures ought to be returned, but we should see them.

Mr. GRINDLEY: Could you mark the indentures before they are returned?

Mr. MERRIN: That is a very good suggestion.

Mr. HAYES: Let a note be put on the regulations that both indentures and certificates are to be sent up, and that the indentures will be returned, but that the certificates will be retained.

Mr. ROBINSON: But if the employer be dead?

The VICE-PRESIDENT: In that case we can accept an affidavit.

### THE SCHOOL OF CHEMISTRY.

The following letter from the Privy Council was read:—

October 2, 1890.

SIR,—I have to acknowledge the receipt of your letter of the 25th ultimo, and to acquaint you, in reply, that the Privy Council have not yet come to any decision in regard to the School of Chemistry established by your Society.

I am, &c.,

The Registrar of the Pharmaceutical Society.

W. B. KAYE.

### SHADOWING PROBABLE.

A letter was read from the City of Belfast Police Office Detective Department asking for an authentic list of all the pharmaceutical chemists in Belfast.

On the motion of Dr. Burns, seconded by Mr. Baxter, it was ordered that a copy of the Calendar, written up to date, should be forwarded to the Belfast Detective Department, accompanied with an explanatory letter stating that there are others besides pharmaceutical chemists who have now the right to sell poisons, and who have up to August 18, 1891, to register as chemists and druggists.

### NEW MEMBERS.

The following were nominated for membership of the Society:—J. S. Shortt, Cork; J. J. Walsh, Cork; P. J. Fielding, Cork; J. R. Millwood, Queenstown; and Frank Harley, Bandon.

### THE EVIDENCE REQUIRED.

A letter was received from Mr. Samuel P. Boyd, in which he urged that the printed schedules A and B. which had been issued under the new Act, required more proof of persons having been in business before 1875 than was necessary.

The PRESIDENT said no legal definition was given in the Act of a chemist and druggist, and it had been found very difficult to say who came under that designation.

Mr. HAYES: We do not ask anybody to produce a poisons-book before 1875. Poisons-books since that date will do as well.

Mr. HODGSON said that the Poisons Act only came into force in 1870; and in 1875 a great number of persons were selling poisons who had never heard of that Act, and who therefore did not keep poisons-books; and it would be very hard lines on them to compel them to produce poisons-books, the necessity for which they did not know of before 1875.

Mr. HAYES: We only require a poisons-book as collateral evidence of the party being a chemist and druggist.

Mr. HODGSON: You could not insist on a poisons-book kept before 1875 as a *sine qua non*.

### LEGAL RECEIPTS AND EXPENDITURE.

A letter was received from Messrs. Casey and Clay, intimating that they had received 20*l.*, the amount of four fines imposed on defendants in prosecutions in Belfast, which they had placed to the credit of the Society; and requesting



a cheque for a balance due to them. The letter was referred to the Law Committee.

#### RECOGNISING SCHOOLS OF CHEMISTRY.

The Principal of the Upper Sullivan School, Hollywood, co. Down, wrote asking that the chemical department of the school should be recognised by the Society. He invited inspection. The Vice-President testified from personal knowledge to the excellence of this school; but after some discussion, on the motion of Dr. Burnes, seconded by Mr. Merrin, it was resolved that no more applications from schools for recognition be considered for the present.

#### A SECOND DAY'S BUSINESS.

In consequence of the amount of business involving important details on the agenda paper, it was found necessary to adjourn until Thursday morning. The Council resumed at 11 A.M. on that day, and proceeded in committee to draw up regulations under section 12, sub-section 1, of the Pharmacy Amendment Act, 1890.

Professor TICHBORNE postponed the consideration of the following notice of motion, which stood on the agenda paper in his name:—That from this date the outgoing President and Vice-President of the Society shall not be eligible for re-election after having held one of the said offices for three years.

The following notice of motion had been given by Mr. Hodgson, the treasurer:—That a committee be selected from members of the Pharmaceutical Society to control and manage the Chemical School; that they elect out of their members one gentleman to act as secretary and treasurer to the school, who shall receive all fees and make all payments in connection with the school; that the Pharmaceutical Society shall in future have nothing to say to the monetary affairs of the school; and that a cheque for 7l. 9s. 9d., being the balance in hand of the Society to the credit of the school, be handed over to the secretary to the committee of the school as soon as he is appointed.

Mr. HODGSON moved that the above notice of his be referred to the House Committee, including Dr. Burnes; and that committee should meet on November 12.

Mr. HAYES seconded the motion, which was unanimously agreed to.

On the motion of Mr. WHITLA, seconded by Mr. MERRIN, indentures were ordered to be returned to Mr. V. G. L. Fielden, and a certificate which had been sent by him to be filed in lieu thereof.

Letters were read from Messrs. W. P. Ryan, licentiate, and J. J. White and A. H. Bolton, asking for the marks awarded to them at the examinations.

The Registrar was directed to comply with the requests.

A letter from Mr. Theophilus Harper tendered a matriculation certificate from the Royal University for acceptance, in lieu of passing the Society's matriculation examination. The certificate was accepted.

A few other letters having been disposed of, the Council adjourned.



THE AMBITIOUS SCULPTOR.

"Call them s'tatues You wait and see mine when it's finished."

## Legal Reports.

#### SALT REGAL COMPANY v. BROWN.

In the Chancery Division of the High Court, on Friday, November 7, before Mr. Justice Chitty, Mr. Romer, Q.C., asked that a motion in this case might stand over. Mr. Byrne, Q.C., stated that if his friend's clients were disposed to give security for a substantial sum, probably some order could be arranged. The motion was accordingly directed to stand over.

#### BEECHAM v. HADDOCK.

On Saturday, the 8th inst., in the Chancery Division of the High Court of Justice, Mr. Eve, on behalf of the plaintiff, moved for judgment in this action in default of appearance. The action, he said, was brought by Thomas and Joseph Beecham, of St. Helen's, Lancashire, against B. Haddock, chemist and druggist, of 139 Brierley Hill and Greet's Green, West Bromwich, claiming an injunction restraining the defendant from selling as "Beecham's pills," or "Beecham's patent pills," pills not manufactured by the plaintiffs. On July 25, 1890, his lordship granted an injunction until the trial or further. The defendant had never appeared in the action, and he (Mr. Eve), by the statement of claim, asked that the injunction should be made perpetual (the plaintiffs were not claiming damages), and that the defendant should pay the costs of the action.

Mr. Justice North made the order asked for, subject to the production to the Registrar of the order of July 25.

#### OPPENHEIMER BROTHERS & Co. v. R. B. HAIR AND SON.

In the Queen's Bench Division of the High Court of Justice, on Monday, Mr. Baron Pollock, sitting with a special jury, had again before him the case of Oppenheimer Brothers & Co. v. R. B. W. Hair & Son, which was an action to recover damages for breach of contract. Plaintiffs are wholesale druggists and merchants of London, and defendants are the proprietors of "Dr. Hair's asthma cure." The defendants agreed to advertise their patent preparation in the "Spanish Almanack," a publication issued by plaintiffs, and circulated in Spanish-speaking countries, excepting Spain. Payment was to be made in goods, but, a dispute arising as to the wording of the advertisement, defendants declined to pay, and the present action was brought.

The case, as opened by the plaintiff's counsel, was to the effect they they were the proprietors of the "Spanish Almanack," which had a large circulation in Spanish America and other Spanish-speaking countries, and negotiations took place between them and the defendants respecting the insertion of an advertisement. The price of the advertisement was to be 100l., and it was arranged that the defendants should pay in goods, by consigning to plaintiffs bottles of Dr. Hair's asthma cure to the amount named. The advertisement was drawn up, and a proof submitted to the defendants, who approved of it. There was, he understood, a suggestion that the advertisement was altered by the plaintiffs after its approval and previous to its insertion in the almanack, but the witnesses he proposed calling would show that any such assertion was quite without foundation. The advertisement was one extolling the virtues of Dr. Hair's asthma cure, and the defendants hoped by the announcement to create a market for their speciality in Spanish America and other places. The advertisement duly appeared, and an immense number of copies of the almanack were circulated, with the effect that several orders for the cure were sent to the plaintiffs. Application was made for payment as arranged, but the defendants declined to carry out the contract on the ground, he believed, that their address had been omitted from the advertisement by the plaintiffs so as to ensure orders for the medicine going through them. The plaintiffs would state that to the best of their knowledge defendants' address was never in the advertisement, but the defendants remained obdurate, and refused to execute any orders of his clients for the asthma cure.

Mr. G. Oppenheimer, a member of the plaintiffs' firm, was



called, and said that the advertisement was not inserted until after a proof had been submitted to the defendants and approved of by them. In cross-examination witness admitted that the firm had sold "Dr. Hunt's asthma cure" to customers who had asked for Dr. Hair's. But he said as the defendants refused to supply them with their goods they had no alternative.

Mr. W. Oppenheimer, another partner in the firm, gave similar evidence. He said that, being unable to obtain Dr. Hair's asthma cure, they determined upon supplying their friends with another asthma cure, which was made up, and was what they called "Hunt's asthma cure."

Cross-examined: Do you suggest you were unable to obtain Dr. Hair's remedy from anyone but the defendants?—We might have done in a roundabout way, and at a higher price.

There was no such person as Dr. Hunt?—It was a trade-mark.

Mr. Candy, Q.C., for the defence, said if defendants had executed the orders sent by the plaintiffs, who did not offer to pay, the result would have been that they would have got their 100% and consequently need not have brought the action. He (the learned counsel) deliberately charged plaintiffs with having imitated defendant's article, and supplied their preparation to those asking for "Dr. Hair's asthma cure," thus committing a fraud on the public. The defendants never approved of the advertisement in question, which was not an advertisement of his clients', but merely an article which was to be supplied by the plaintiff.

In the result the jury found for the plaintiffs, damages 100%.

Judgment was delivered accordingly, with costs.

### BANKRUPTCY REPORT

*Re* JOSEPH B. GRAY, 63 Englefield Road, Islington, and 9 Mincing Lane, E.C., Merchant and Commission Agent.

AN application was made to Mr. Registrar Brougham, at the London Bankruptcy Court, on Thursday, for the bankrupt's order of discharge. Mr. H. Brougham, assistant receiver, read the report, and Mr. Hooper Willis appeared in support of the application. The liabilities amounted to 1,899*l.* 12*s.* 9*d.*, and the assets had realised 419*l.* 4*s.* 6*d.*—sufficient to pay a dividend of 5*s.* in the pound. The bankrupt commenced business in 1864 as a merchant and commission agent. In 1870 he was joined by a partner, who retired, however, in 1881, since when the bankrupt has traded alone. About June, 1888, he was dealing in indigo, and employed his son in the business. The latter afterwards set up in business on his own account at the bankrupt's address, as an indigo-broker, and the following year removed to another address, the bankrupt accompanying him. For the purpose of financially assisting his son, the bankrupt obtained and hypothecated goods to the extent of 12,000*l.* The charges incurred by the hypothecation were borne entirely by the bankrupt, no consideration whatever having been given by or required from the son. Two offences were charged—viz., imperfect book-keeping, and trading with a knowledge of insolvency. It was further reported that the bankrupt had accommodated his son to the prejudice and injury of the creditors; also that the bankrupt's drawings of 400*l.* per annum were excessive, having regard to his admitted knowledge of insolvency. Mr. Hodges opposed the application on behalf of creditors. Mr. Willis contended that the bankruptcy was principally due to illness of the bankrupt. He called evidence to prove that the creditors had not suffered by the transactions between the bankrupt and his son, and elicited the fact that no liability had fallen upon the bankrupt in respect of the accommodation. With regard to the personal drawings, he urged they were not excessive, having regard to the bankrupt's large family and severe illness. He asked the Court to say that a small suspension would meet the case. In giving judgment the learned Registrar held that the offences charged by the Official Receiver's report had not been disproved. Nothing rested upon the hypothecations of the indigo, as the

creditors had not suffered: but he was obliged to find that the drawings had been excessive, having regard to the bankrupt's knowledge of his insolvency. On those grounds, therefore, the discharge would have to be suspended for two years. Order accordingly.

### Trade Notes.

MESSRS. HOCKIN, WILSON & Co. have removed their Manchester branch from 64 Corporation Street to 27 Cannon Street.

MESSRS. BRATBY & HINCHLIFFE (LIMITED) have just issued an illustrated price-list of abraded-water machinery, &c., in German.

A WHOLESALE price-current of homœopathic medicines and sundries has just been issued by Messrs. W. Butcher & Son, Blackheath.

A NEW illustrated price-list of hearth, stove, painters' and other brushes has been issued by Messrs. Dukas and Co., 20 Red Lion Square, E.C.

MESSRS. G. VOGT & Co. are rather hurt at our reference to their perfume show-card. They say the picture represents fairies, not ballet-girls, and (they somewhat inconsistently add) "the idea was taken from a scene in the *Midsummer Night's Dream* at the Globe Theatre last winter." We did not know the Globe Theatre employed real fairies.

### NEW COMPANIES.

HORTON & Co.—Established to take over, as a going concern, the business of a chemist and druggist, vendor of photographic apparatus, &c., now carried on at 1 Park Crescent, Torquay. Capital, 2,500*l.*, in 10*l.* shares. First subscribers: G. Cheverton, chemist, Tunbridge Wells; W. D. Webber, cement manufacturer, Castleton, Torquay; J. Jordan, retired hotel proprietor, Torquay; Elizabeth Wreyford, widow, St. Aubyns, Torquay; Ellen Goss, widow, St. Aubyns, Torquay; Eleanor Gertrude Webber, spinster, Castleton, Torquay; Alice Mary Webber, spinster, Castleton, Torquay. The company is unlimited. Mr. W. D. Webber is to be managing director, with a salary of 50*l.* a year. Mr. G. Cheverton is also appointed a director.

ALKALI AND SULPHUR COMPANY (LIMITED).—Registered with a capital of 60,000*l.*, divided into 6,000 shares of 10*l.* each, for the purpose of acquiring the business and property of the Lancashire Alkali and Sulphur Company (Limited), in liquidation, and to purchase certain patents and inventions belonging to E. W. Parnell, James Simpson, and John Leith for improvements in the manufacture of alkali sulphur and other chemicals. The original subscribers, each of whom take one share, are:—William Bennett, Lodge Lane, Liverpool; John Briscoe, Plasnewydd, Denbighshire; R. J. Glasgow, India Buildings, Liverpool; A. A. Guild, Oldcastle Buildings, Liverpool; H. J. Houghton, North John Street, Liverpool; James Simpson, Rumford Place, Liverpool; and John Leith, Knowsley Road, St. Helens. There shall not be less than three, nor more than seven, directors. The first shall be William Bennett, John Briscoe, Robert L. Glasgow, A. A. Guild, H. J. Houghton, and James Simpson. Qualification, 50 shares of 10*l.* each.

### Obituary.

MATTHEWS—Mr. Henry Matthews, wholesale druggist, Bristol, died on Tuesday, after a severe and painful illness, in his 63rd year. The deceased gentleman was well known in Bristol, having taken an active part in its civic and political associations. He leaves a widow and grown-up family, the latter by his first wife.

SCOTT.—On October 21, at Shute House, Denbury, Herbert Scott, chemist and druggist, late of Budleigh Salterton, Devon. Aged 70.



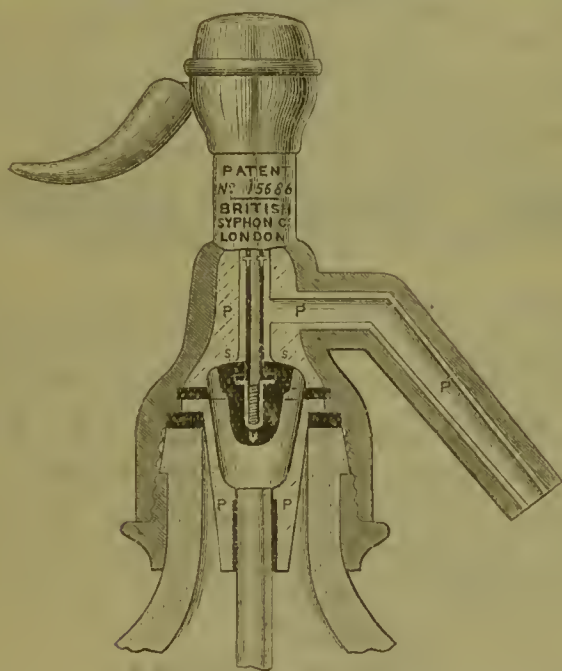
## Notes of Novelities.

### A1 MENTHOL LEAVES.

MESSRS. SHIRLEY BROTHERS have patented the application of menthol to paper to make menthol leaves for application to the head and body in cases of nervous headache, neuralgia, rheumatism, &c., in the same way as mustard leaves are applied. These are put up in packets of three leaves, to sell at 6d.

### THE "MAJOLICA" SYPHON.

A NEW syphon for aerated waters was patented some time since by the British Syphon Manufacturing Company, of 2 Gresham Buildings, but they have only quite lately so perfected it as to enable them to bring it before the trade on a commercial scale. The prominent feature of their new syphon is a porcelain lining to all the metallic fittings. No doubt there has been a prejudice against syphons arising from a fear, not entirely unfounded, of metallic contamination of the waters. In this new syphon the water cannot come into contact with any metal whatever. The head of the syphon is formed of porcelain, and the block tin is moulded over it. Thus a complete and perfect china lining

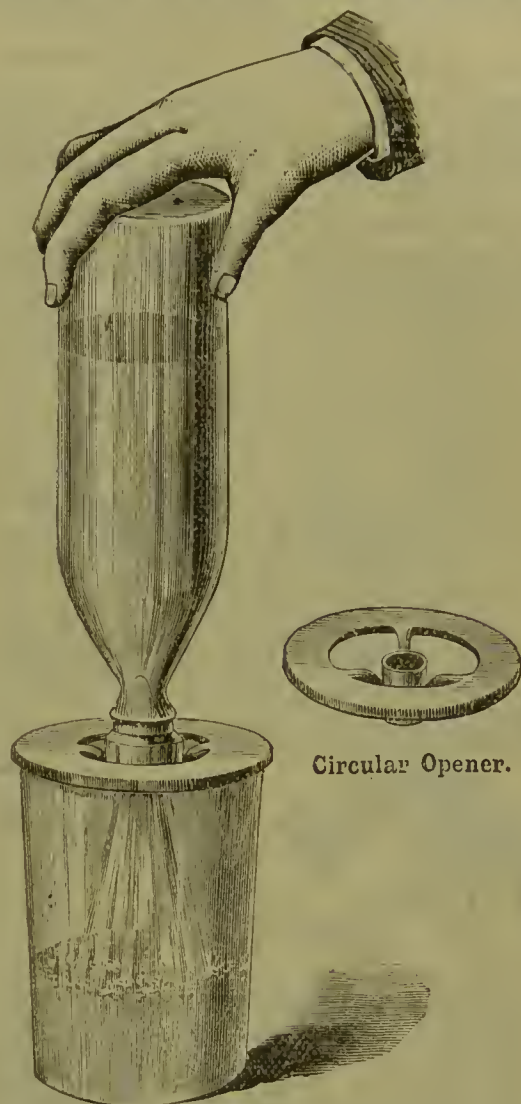


is obtained. The piston (T) is covered with ebonite, the seating (S) which applies to the valve forms part of the porcelain binding, and the valve (V) itself is a patent carbonised fibre said to be practically indestructible. The water only touches the glass bottle and tube, the carbonised valve, the ebonite piston, a pure rubber ring where the china socket meets the china head, and the porcelain tube through which the water flows to the glass. These syphons will certainly be appreciated by particular customers, and would often be recommended by medical men. They cost a little more, but this extra could soon be recouped by an extra penny on the water. The British Syphon Company have adapted the same patent arrangement to seltzogenes to which, of course, similar remarks apply.

### BONWICK SYPHON-STOPPER.

SOME novel forms of bottles for aerated waters have been patented and are now being shown by the Bonwick Patent

Syphon-Stopper Syndicate (Limited). The stopper is simply a grooved glass ball, which can be loosened with the least suitable pressure admitting a flow of the water to the glass. The simplest method adopted is to rest the circular opener on the glass, and then apply the mouth of the bottle to the



Circular Opener.

little metal ring in the centre, as shown in the engraving. In another bottle there is a lever arrangement attached to the neck of the bottle, which can be worked by the finger. In yet another the bottle is fixed in a nickel frame, and on placing a glass under it, and lightly pressing the bottle from the bottom, the water is drawn off. The idea seems to be to supply a cheap substitute for the syphons. The invention is ingenious and effective, but the water flowing over the metal of the opener will be objectionable, we should think, to some people. The bottles can be filled from the usual machines.

**THE INTELLIGENT FOREIGNER ON BRITISH PIETY.**—According to the *Zeitschrift des Oesterr. Apoth. Vereins*, a special prayer-book for medical men has just been published in England. It contains a selection of suitable prayers for delivery on the occasion of surgical and other operations.

**ADULTERATION OF MILK.**—Perron has drawn attention to the adulteration of milk with oil, which is emulsified by means of borax or yolk of egg, and does not produce any effect on the taste of the milk. The addition of this emulsion gives "body" and conceals the addition of water. The mixture of a pure tasteless oil of low specific gravity emulsified by yolk of egg, effectually conceals the fact of milk having been skimmed.



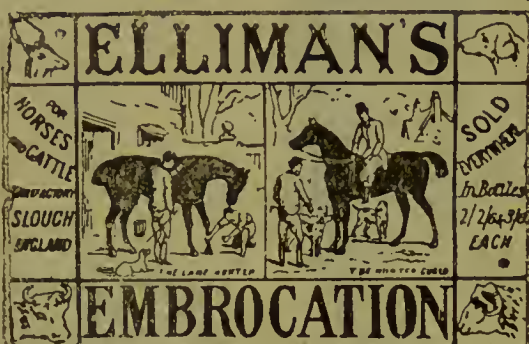
REGISTERED **"SANITAS"** TRADE MARK.  
IS THE IDEAL AND MOST RELIABLE  
**DISINFECTANT,**  
And is most used in Antiseptic Surgery.

LARGEST SALE IN THE WORLD.

The Trade, in their own interest, should stock all our "SANITAS"  
Fluids, Oil, Powder, Soaps, Toilet, and Veterinary Preparations.

**KINGZETT'S BACTERICIDES**  
AND  
PATENT PRESERVED PEROXIDE OF HYDROGEN  
**THE SANITAS CO., BETHNAL GREEN, E**

SHOW CARDS, 24×17 or 17×12,  
Free to any Address in the United Kingdom.



See First Page, facing inside of front or cover, in the  
First Issue of the month, for last particulars.

*Noakes' Tins*  
*for Druggists' use.*  
Write for Price  
List No. 14. 4  
**B. NOAKES & CO.**  
Dockley Road,  
Bermondsey, London

**UMNEY'S** CINCHONA  
ERGOT  
CASCARA  
FLUID  
WRIGHT  
LAYMAN  
& UMNEY  
SOUTHWARK  
LONDON  
EXTRACTS.

PATENTS AND TRADE MARKS.  
W. P. THOMPSON & CO., F.C.S., M's I.M.E., &c.,  
6 Lord Street, LIVERPOOL; 6 Bank Street, MANCHESTER; Angel Row,  
NOTTINGHAM; and 323 High Holborn, LONDON, W.C., Chemical and  
General Patent and Trade Mark Agents.  
MANUALS OF INSTRUCTIONS GRATIS.

**SILICATED CARBON  
FILTERS**  
PATENT SELF-AERATING  
MOVEABLE BLOCKS  
WORKS, BATTERSEA LONDON. S.W.

**MOSS'S**  
**CASCARA**  
IN ALL FORMS.  
**SELECTED MATURE BARK  
AND PREPARATIONS.**

Through Wholesale Houses, or direct from  
**JOHN MOSS & COY**  
Makers of Galenicals and Medicinal Chemicals,  
Galen Works, Wilson St., NEW CROSS ROAD, S.E.

**MUMFORD'S**  
(FARRINGTON ROAD, LONDON, E.C.)  
**PURE CRUSHED LINSEED,**  
In 1-cwt. and ½-cwt. Bags, 19/- Cwt.,  
Or in 14-lb. and 28-lb. Bags, 20/- Cwt.;  
**PURE STARCH POWDER,**

In 56-lb. bags, 26/-,  
Or in 7-lb., 14-lb., and 28-lb. Bags, 28/- Cwt.,  
CARRIAGE PAID [2]  
to Railway Stations in England, or half to stations in Scotland, Ireland,  
and Wales, on parcels of a total weight of not less than 1 Cwt.

IMPORTANT TO CHEMISTS.  
**NOVEL "COUNTER ADJUNCT"**  
FOR NOVEMBER.

SEE PAGE 42.  
EVANS, LESCHER & WEBB, LONDON. | EVANS, SONS & CO., LIVERPOOL.  
Savaresse's Sandal Wood Oil Capsules are now in White Enamelled Metal Bores

The SANITARY INSTITUTE has awarded  
**LANO-CREOLIN**  
A CERTIFICATE OF MERIT.  
JEYES' SANITARY COMPOUNDS CO., LIM.  
43 CANNON STREET, LONDON, E.C.

GIVE UP CONCENTRATED INFUSIONS, AND USE

*Fletcher's*  
*Concentrated Liquors*

**EDITORIAL NOTES.**

THE PHARMACY BILL DISCUSSION.  
THE Pharmacy Bill is a success in at least one respect: it  
is providing the text for an abundant supply of eloquence  
and literature. It gives such an admirable opportunity for  
airing grievances, correcting historical errors, demonstrating  
philosophical theories, concocting fiction, and displaying



any kind of knowledge, that we cannot wonder at its popularity. Bristol, Sheffield, and Liverpool have had a turn at it during the past week. Birmingham, Leeds, Hull, and several Scotch cities are getting ready for conferences; and, most wonderful of all, even London chemists are getting into the habit of looking into each other's faces.

A curious method is adopted at most of these meetings. The Bill is taken clause by clause; the chemists consider and discuss, and quite naturally pass each; and then they adopt the whole more or less unanimously.

This is not quite the reasonable way of discussing the proposal before the trade. No doubt if chemists are asked the questions, Do you desire that the dispensing of physicians' prescriptions should be confined to you? or, Do you wish to be relieved from jury service? most of them would readily enough answer in the affirmative. If asked about the curriculum, or about the regulations of membership of the Pharmaceutical Society, the majority would say the questions had no interest for them, and the clauses in reference to these could pass in most meetings *nemine contradicente*. But we imagine there would be a very different response if the question to be voted on were, Is this your ideal of a Pharmacy Bill? As it is, there is at nearly all the meetings an unmistakable undercurrent of dissatisfaction in consequence of the deliberate omission of any word or words protesting against the usurpation of the title and rights of chemists and druggists by persons whose only qualification is that they have associated themselves together under the provisions of the Companies Act.

Our columns show that almost every week one or more such companies are registered. Not to protest against them in a Bill framed on the part of chemists is to tacitly accept the condition; and to agree to such a negation of the Pharmacy Act of 1868 is to practically surrender all that has been gained by legislation by the labours of the past fifty years.

Two principal reasons are given for the advocacy of this surrender, besides several too flimsy to be worthy of discussion. It is said, first, that chemists cannot reasonably ask Parliament to stop companies trading as chemists and druggists so long as they retain the right for their own widows or executors to do the same. We showed last week that this argument proves too much—that if the “widows clause,” as it is called, justifies companies in defying the Pharmacy Act, it justifies everybody in so doing. Are the Pharmaceutical Council prepared to go that length? We showed, besides, that chemists have a reasonable right to insist on such an exemption, as otherwise their property would be simply wrecked at their death, and that they would be mad to let that exemption go. It will not be easy to show that the companies can put in any claim like this.

But we are complacently told, it will not do to ask for too much, or you will get nothing. Half a loaf is better than no bread. We reply, if we have a right to the loaf, we are going to ask for the loaf. If in the struggle we only get half the loaf, we hope it may be the half which will contain our clause. Mr. Carteighe and his friends are hoping to get the half containing the curriculum.

As for the company clause wrecking the Bill, that is simply nonsense. It would be much more easily defensible in the House of Commons than the curriculum clauses, the jury clause, or the prescription clause. A democratic member taking up the curriculum proposals, and showing what was demanded in the way of expense, time, and study, to keep new men out of the trade, could blow the Bill to atoms in half an hour. From a House of Commons point of view the curriculum clauses are simply monstrous.

A vigorous opposition on the lines we have indicated

seems to have been offered at Liverpool; but in all the meetings the organisation has all been on one side, and the dissentients have not acted on a concerted plan. Let the true issue be joined, and the case stated fairly on both sides, and we do not doubt the result.

### SALICYLIC ACID.

THE resources of the Pharmaceutical Society's Research Laboratory have been engaged lately in the elucidation of the constitution of commercial salicylic acid, and the results were given to the world in the communication made to the evening meeting on Wednesday. It is no part of our purpose in this note to criticise that communication, albeit it travelled over well-beaten ground, and comes somewhat late in the day. The medical and pharmaceutical professions were satisfied from the researches of John Williams, B. C. Hesse, Charteris, Fischer, and many others, that the acid of commerce can be made a much purer article than the British Pharmacopœia requires it to be. It is somewhat difficult to realise that this acid, perhaps the most extensively employed organic product of its class—the quantities used in medicine being enormously in excess of all similar substances—is comparatively young as a medicine for it is only sixteen years ago since Kolbe perfected the synthetical process for its production which made its use on a large scale a possibility. But even in 1875 no one would have predicted that salicylic acid would take the place in medicine which it has done: it was as an antiseptic and antiferment that it then attracted world-wide attention. How, then, did it get its footing in therapeutics?

Many chemists and druggists will doubtless recollect the old-fashioned treatment of acute rheumatism—the saline diaphoretic mixtures, the opium fomentations of the joints, and all the palliatives applied through wearisome months to helpless and crippled patients. Time seemed to be as great a factor in the cure as anything else. About 1870 there began to grow amongst practitioners a determination to treat the disease more rationally; the germ theory of disease was then in its infancy, and one of its ablest provincial exponents was Dr. T. J. MacLagan, a physician with an extensive practice in Dundee then, but now established in London. Dr. MacLagan had a theory of his own regarding acute rheumatism, and he began early in 1874 to treat the disease on new lines. He proceeded on scientific principles, but he imparted into his method a certain amount of what some people would call religious feeling—he acted on the belief that where diseases originate Nature has provided a remedy. This belief took him to the willow and its active principle, salicin, although he tried many other things, and after extensive trials of this he was able to demonstrate to completeness early in 1876 that salicin is a rapid and unfailing cure for acute rheumatism. A few days of the salicin treatment sufficed to subdue the febrile symptoms of the disease, and in from three to six weeks patients were taken on to the convalescent stage. This was a notable achievement in therapeutics, but it also gave an opportunity to salicylic-acid makers, of which they were not slow to take advantage. It had long been known that salicin splits up in the system into salicylic acid and something else, and within a few weeks after Dr. MacLagan's publication the fact was made known in Germany that salicylic acid had been successfully used for the treatment of acute rheumatism. It was asserted, indeed, that this discovery was made independently of MacLagan's. Whether it was or not there is no question of the fact that the treatment with the acid is practically identical with the salicin treatment; if anything, the former is quicker.



but the latter has always been considered to be superior owing to its being free from secondary effects.

It is somewhat curious that the two chemicals should be linked together therapeutically as they are, for it so happens that the acid was first prepared from salicin. That was in 1839, when Pira made it by oxidising salicin with chromic acid, subsequently heating the product (salicylous acid) with caustic potash, and freeing salicylic acid by neutralisation with hydrochloric acid. The acid existed, but no more, for many years thereafter; it was obtained from various sources Kolbe and Lautemaun first preparing it synthetically in 1860, but metallic sodium was used in its production, so that not until Kolbe discovered in 1874 that by acting upon a mixture of carbolic acid and caustic soda with carbonic anhydride salicylic acid was produced, did there seem any likelihood of the acid coming into general use. The immediate and universal employment of the acid as a preservative has fully warranted the great things which its discoverer and his colleagues predicted for it. We need not enter deeply into the merits of the article in that respect. Salicylic acid has become so well recognised a preservative—it is so commonly used as such—that Governments have had to formulate regulations for it especially. One of the most notable circumstances in connection with its introduction was the great law case *Von Heyden v. Neustadt*, tried in the English Courts of Justice in 1879 and 1880. Von Heyden was Kolbe's authorised manufacturer, and the discovery had been patented in this country in 1874. The novelty of the invention was the matter in dispute, the 1860 discovery, well known through chemistry text-books, being held as an invalidation of the 1874 patents. The principles of the discoveries were practically the same, but the use of caustic soda in place of metallic sodium was distinctly novel, and on that ground the Chancery Courts and the Court of Appeal sustained Von Heyden's contention that the defendant should not manufacture or sell in this country salicylic acid manufactured by another maker than the plaintiff. That decision regulated the supply of artificial salicylic acid as long as the patent rights existed. From the first it has been known to therapeutists that this acid differs materially in its effects from the acid prepared from oil of wintergreen. It is necessary to give the acid in large and oft-repeated doses, and when the artificial article is used it is found that after a day or two very disagreeable symptoms supervene, such as head troubles and irritation and eruptions of the skin, which seldom arise from the natural acid. The late Mr. John Williams, soon after the introduction of the acid, pointed out that it was not a chemically pure substance, and in 1878 he published a method of purification which is substantially that now recommended by Charteris and Henderson—viz., saturation of the acid with precipitated chalk, crystallisation of the calcium salicylate, and precipitation of pure salicylic acid from that salt. The impurities which lower the melting-point of the acid, and produce the lethal effects described by Professor Charteris at the Leeds meeting of the British Medical Association, have never been exhaustively dealt with except by Fischer and several chemists in America, notably B. C. Hess, who gave an exceedingly complete account of the literature of the subject to the American Pharmaceutical Association two years ago. What most of the investigators have failed to do has been to separate and name the impurities. Mr. Williams did separate two, and these Dunstan and Block have now found to be orthocresotic and metacresotic acids; but the commercial acid now supplied does not contain either of them, but paracresotic acid, which Charteris finds to be lethal. This, with a great deal of finical work on melting-points, is the sum and substance of the Research Laboratory investiga-

tion. The remarkable thing is that paracresotic acid has been used by Professor Kemme as an antipyretic, and is declared by him to be non-toxic. To whom, then, should we pin our faith—to the German professor or the Scotch one?

## COMMENTARY.

**THE ALCOHOL TEST FOR CASTOR OIL.**—Professor Attfield informs the *Chemical News* that "in every reprint of the British Pharmacopœia issued in and since 1886, castor oil has been stated, correctly, to be soluble in *four* times its volume of spirit of wine—of course, of the official strength and at the official temperature."

**KOCH'S CONSUMPTION-CURE.**—It is stated that Dr. Koch will deliver his first report on his experiments before the Berlin Medical Society on November 26. Dr. Von Bergmann is to give a demonstration of the treatment before the Free Surgical Society on Monday next, introducing a patient who has been inoculated. Meanwhile, Dr. Libbertz, of Frankfurt, who has been associated with Dr. Koch in his experiments, has shown that the same inoculation will cure lupus in a remarkably short time, lupus being also a tuberculous disease. The lymph, it is reported, will very soon be accessible to the medical world, and will be sold in tubes at 25s. for about twenty or thirty injections.

**THE CONSUMPTION OF CHLOROFORM.**—The readers of *Tit Bits* have been endeavouring to estimate the annual production and quantity used of chloroform, but the results are not very happy. After quoting our imports and exports for 1889, a writer says:—

"As to the quantity of chloroform used in this country it is almost impossible to give any really accurate figures. Among the 145,000 persons received into the 500 hospitals of the United Kingdom every year, probably at least 60,000 are surgical cases in which chloroform is used, and we may multiply these at least ten times for the 480,510,000 inhabitants of the world who are within reach of the same advantages, and probably receive the benefit of  $1\frac{1}{2}$  tons of chloroform every year."

This, we take it, is very wide of the mark. Allowing only two fluid drachms for each of the 600,000 surgical patients,  $10\frac{1}{3}$  tons instead of  $1\frac{1}{2}$  would be required; but the consumption of chloroform in surgical operations is only a part of what is produced. A very large proportion of it is used medicinally. Spirit of chloroform is the most popular medicine with prescribers, and large quantities of chloroform are used by manufacturers of chlorodyne and other patent medicines. We have heard from a reliable source that the production of chloroform in Edinburgh is not less than 150,000 lbs. annually, and probably 200,000 lbs. is nearer the mark. This accounts for 83 tons. The makers of acetone chloroform in the United States produce about 30,000 lbs. per month—never less than 25,000 lbs., and sometimes 40,000 lbs. that is 161 tons nearly per annum, which may be taken to represent what is used there, so that instead of reckoning the world's annual consumption by units of tons, we should have to reckon it by hundreds before we get very near the truth.

**THE OUTPUT OF PLATINUM.**—In view of the recent enormous advance in the price of platinum, the following figures, showing the output of the crude ore in Russia, are of interest:—In 1881 2,986 kilos. were produced; in 1882, 4,081 kilos.; in 1883, 3,537 kilos.; in 1884, 2,237 kilos.; in 1885, 2,591 kilos.; and in 1886, 4,317 kilos., or an average of hardly 660 cwt. a year. All this platinum is found in two districts of the Government of Perm. The mines of Goro-



blagodsk yield about two-thirds, those of Nigi-Taguitsk one-third of the supply. The syndicate which is said to be cornering the platinum supply have, no doubt, in view the enormously growing demand for platinum for electric industries, but the cut-throat policy they are reported to pursue is likely to have the effect of stimulating the working of platinum deposits in other parts of the world, as well as of putting electricians on their mettle in finding a substitute for platinum. In the Ural mines, until some years ago, platinum was obtained as a kind of by-product in the working of the auriferous deposits the existence of which led to the opening of these mines. But during the last few years the gold ore has become much scarcer, and platinum has superseded gold as the principal product of the mines. Besides the operations of the syndicate, the recent advance in the metal is attributed partly to the increasing scarcity of the ore and to the fact that labour, always an uncertain factor in the Ural mines, has become excessively scarce since the commencement of the Trans-Siberian Railway. News comes opportunely from Mexico of the discovery of platinum in the ores extracted from certain mines in Sinaloa, a State famous for its mineral wealth.

**SYNTHETICAL RUBIES AND SAPPHIRES.**—There was quite a sensation on November 10, at the Academy of Sciences, writes our Paris correspondent, when M. Frémy uncovered the sparkling display of rubies produced synthetically by M. Verneuil under his guidance. There they were, perfectly rhombohedral, blood-red, and brilliant, not large perhaps, but in a thick crust, nearly 1 inch deep, still adhering to the sides of the broken crucible. He explained that the process was substantially the same as that followed a year or two since, and mentioned at the time in *THE CHEMIST AND DRUGGIST*—namely, heating together anhydrous alumina and potassium fluoride with a trace,  $1\frac{1}{2}$  per cent., of chromium oxide. The only chemical differences were that this time the mixture was rendered alkaline with potassium bicarbonate, and the mingling of the components was purposely left imperfect, so that the combination should take place between the volatilised elements, and the crystals could grow by “feeding,” as is done with crystals by the wet process. Another difference was in the manipulation. Instead of using a gas-furnace, they were enabled, through the courtesy of MM. Appert, the glass manufacturers, to keep large crucibles constantly heated for one week at a temperature of  $1,300^{\circ}$  C. In this manner batches of 3 kilos. were obtained, and now shown to the Academy, out of 5-kilo. charges. The crust inlaying the implement consists of perfect crystals, easily taken apart by simple rubbing. The largest weigh 75 milligrammes—about one-third of a carat. Chemically, there is no doubt, the crystals are identical with natural rubies. But, to ascertain their industrial value, some were cut by a lapidary into the usual rose shape, and pronounced by jewellers equal in hardness and brilliancy to the natural stones. Another interesting result of the experiments was that the crystals here and there, but in very small numbers, were, instead of ruby red, sapphire blue. And in one instance there was one red on one side and blue on the other. What influence or circumstance may have caused this variation has not been ascertained; but it proves the two gems to be closely related. Under a magnifying-lens, as seen by your correspondent, the perfect regularity of the crystals was remarkable.

**THE INJUSTICE OF THE PHARMACY ACT.**—A Mr. James Lewis, of Deddington, writes to the *Oxford Journal* to offer “a few remarks on the injustice of the Pharmacy Act, 1868.” Mr. Lewis has had a notice—he does not say from what source—pointing out that if he is not a chemist and

druggist he is liable to a penalty if he sells any compound for the destruction of vermin made from any poison mentioned in the Pharmacy Act. “Now, sir,” he says, addressing the editor of the *Oxford Journal*, “if such a law is not most arbitrary and boycotting, I should like to know what is.” Unfortunately it is the nature of laws to be “arbitrary and boycotting,” so we shall not venture to dispute with Mr. Lewis on this point. But we find from the rest of his letter that for forty years he has been studying this topic of the destruction of vermin. It seems to have been the companion of his life. And now, through jealousy, his knowledge and experience in this matter are to be extinguished so far as the world is concerned. But no, Mr. Lewis will not be quashed. In spite of the Pharmacy Act, he will still advertise and sell a compound for the destruction of vermin which shall be as efficacious for the purpose as any offered to the public. He also tells the Oxford people that he will continue to devote his practical knowledge of botany to the manufacture of “pure herbal compounds, which in many cases have effected cures where the medical faculty have failed.” But he “has always avoided using that poisonous and pernicious drug calomel, a preparation of mercury so much used by our chemists and druggists in their antibilious pills, which has ruined the constitutions of thousands, and has been the cause of thousands of people losing their teeth.” Thus the oppressed one rounds on the “arbitrary coves” who have jealously sought to crush him.

**SPERMIN.**—We hear that there are a good many inquiries for this article, and some dissatisfaction has been expressed that the agents of Scherings have refused to supply it. On inquiring of Messrs. A. & M. Zimmermann, they inform us that they only received four one-gramme phials from the makers, and this has been distributed to distinguished therapists for experiment. They are, however, endeavouring to get a further supply from the makers, but they question if the time is yet ripe for distributing the product broadcast, the physiological and clinical experiments being yet incomplete, and the dose and best method for administration uncertain. This is a very reasonable explanation, and it may help to allay the eagerness, apparently existing, to try spermin. It is quite probable, we believe, that its use as a stimulant may be eclipsed by its property of dissolving uric acid secretions, which is said to be so remarkable that the days of lithium compounds as gout-remedies are numbered. But for corroboration of this and other statements regarding spermin medical men should have the patience to wait.

**MATTEI'S CANCER-CURE.**—Some time ago Lady Paget gave an account in the *National Review* of wonderful cures of cancer effected to her personal knowledge by Count Mattei's medicines, and considerable interest has in consequence been taken in the matter. Mr. Alfred W. Stokes, public analyst to Paddington, Bethnal Green, and St. Luke's, has analysed Count Mattei's “Electricities,” and the results have been communicated to the current number of the *Review*. The samples were labelled “Elettricità Bianca,” “Elettricità Verde,” and “Elettricità Rossa.” He states that to find if they possessed any special electrical properties, they were placed singly in thin glass tubes; these tubes were suspended by silk filaments. Under such circumstances an electrical body would point one end to the north and the other end to the south. Not one of these came to rest in such a position; neither were any of them attracted by a magnet, as an electrical body would be. Hence, they certainly are not electrical. To delicate test-paper they were perfectly neutral. Vegetable extracts are usually either alkaline or acid; even if neutral when fresh, they speedily



change. Mattei's preparations had the following characters :— Colour, odour, taste, polarity, metals, and alkaloids, none ; specific gravity, 1.0006 *elettricità bianca*, 1.0002 *elettricità verde*, 1.0002 *elettricità rossa* : solid matter in 100 parts, 0.01 *elettricità bianca*, 0.01 *elettricità verde*, 0.01 *elettricità rossa*. The microscope showed an absence of any floating particles or sediment such as are usually present in vegetable extracts. There is but one substance which possesses all the above qualities—that is water. None of these fluids differ at all from water in any of their properties.

#### THE SCOTTISH DRUG DEPÔT IN DIFFICULTIES.

IN the Court of Session, Edinburgh, last Saturday, a petition was presented to the presiding judges (the Lord President, and Lords Adam, McLaren, and Kinnear) by J. J. Fairbairn, Greenend, St. Boswells, and six other shareholders of the Scottish Drug Depôt (Limited), for the liquidation of the company. The petitioners stated that the company was incorporated in July, 1888, the registered office being at 65 Albert Street, Edinburgh, to acquire and carry on business as chemists and druggists, with a capital of 25,000*l.* in 1*l.* shares, the shares allotted numbering 24,750, and the amount paid up 24,078*l.* 15*s.* Six of the petitioners hold 4,500 shares; the other petitioner, James Heriot, aerated-water manufacturer, Edinburgh, is a creditor to the extent of 186*l.* 10*s.* Four of the petitioners—William Galbraith Miller, advocate; William G. Yooll, oil manufacturer, Leith; Dr. John Robertson, Edinburgh; and James Symington, 55 Fountainhall Road, Edinburgh—are directors. The company at its formation took over, as a going concern, the business of the Leith Depôt (Limited), wholesale and retail chemists and druggists, Leith. A. W. Gray had acted as manager of that company, and the report of the accountant who examined the books showed it to have been successfully conducted. The present company was formed for the purpose of obtaining a larger amount of capital for the growing business, and it was part of the arrangement that Mr. Gray should be continued as manager for the first five years at a salary of not less than 300*l.* The first year's business was so favourable that a dividend of 10 per cent. was paid. In the course of the present year the directors, becoming dissatisfied with Mr. Gray's management, superseded him. Mr. Hugh Miller, C.A., Edinburgh, prepared a statement of affairs showing liabilities of the company 30,910*l.* 7*s.* 6*d.*, and assets 27,489*l.* 8*s.* 11*d.* The assets will not be fully realised on a forced sale; and it is believed that, in addition to the liabilities stated, considerable claims will be made on the company, arising out of the acts of the late manager. The capital is locked up in stock and fittings, and the whole cash in hand amounts to 174*l.* 13*s.* 5*d.*, while the company is now called upon to pay several claims amounting to about 2,000*l.*, and further sums will shortly become due. The company is therefore unable to pay its debts. The principal assets of the company are its stock and goodwill of seven shops, which are flourishing and prosperous, and, as the petitioners believe, yielding a good profit. If these assets are realised as a going concern, the creditors will receive 20*s.* in the pound, and the petitioners believe that there will be a large surplus for the shareholders. The petitioners suggest that Hugh Miller, C.A., Edinburgh, should be appointed liquidator. Their lordships ordered intimation and advertisement.

The company referred to in the foregoing report has had an energetic but short existence, and in the course of it has succeeded in revolutionising Edinburgh pharmacy in a degree which seemed impossible five years ago. Up to the end of 1884 Edinburgh was a model city for regulation prices. There was a price-list committee elected by all the chemists in the town, which kept a sharp eye on retail prices and dispensing charges, and the price-list published by this committee was adhered to with a little more than human faithfulness by all the chemists; there may have been a violation of the list law here and there, but that was looked upon as a most wicked thing, and the violators were careful to keep their actions as much as possible *sub rosa*.

A catastrophe happened in 1885. There came a "cutter" to the town, a company-pharmacist, who opened a retail shop in Leith Street, and scattered a rival price-list broadcast. The trade became alarmed, and towards the end of the year met, and resolved to stick to their guns, a few, however, openly stating that they would "reduce patents." Dispensing was not then attacked. The professional stores in St. Andrew's Square did some drug business, and through a chemist in the town got any prescriptions dispensed which came their way. Things went on in this fashion till 1886, when Mr. A. W. Gray, the manager of the company referred to above, opened a drug-shop at the bottom of Leith Walk. This event caused little alarm. Mr. Gray was not a chemist and druggist, nor had he been trained to the business, but a brother of his had an extensive medical practice in Leith, and through that it was supposed, by the far-seeing ones, Mr. Gray would get a footing. However that may be, a few months later—viz, in November 1886—the business was converted into a joint-stock company, under the title "Leith Depôt (Limited)," with headquarters at 49 Leith Walk, the 600 shares being apportioned as follows:—Andrew W. Gray, 40; Andrew Gray, 120; Mrs. Jane Maria Gray, 430; David Ovens, 8; James Fettes, 3; Miss Marjory F. J. Fettes, 2; and William Taylor, 1. The company had two shops—one in Ferry Road, and the other in Leith Walk. At both they used signs, setting themselves forth as chemists and druggists, or equivalent title. The Depôt undoubtedly took a hold with the public; they pushed business, and it was made no secret that the conversion into a joint-stock company was done in order that dispensing and the sale of poisons might be carried on unreservedly. The drug-trade in Edinburgh began to feel the pressure of competition, the price-list which had remained inviolate so many years had become scarcely worth the paper it was printed on, so that the determination of the Pharmaceutical Society to prosecute the Depôt for using the protected title was hailed with much satisfaction. The prosecution is a memorable one in the annals of pharmacy. Each of the shareholders was charged with using the title "chemist and druggist" unlawfully, and on July 7, 1887, Sheriff Rutherford sustained the Society's plea, and fined each of the defendants, the full penalty being imposed on Mr. Andrew W. Gray, and a modified one on the others. The victory gained was short-lived, for before the end of the month the decision was reversed in the High Court of Justiciary, Edinburgh, that decision being final so far as Scotland was concerned. The case turned out to be a magnificent advertisement for the Depôt, the uncalled-for remarks of one of the judges in regard to druggists' prices being especially beneficial to them. Mr. A. W. Gray was an energetic man, and was not slow to take advantage of the position in which the court left him; the business was well worked up, and within a year was disposed of to a new company, the Scottish Drug Depôt, Limited, whose capital was 25,000*l.*, in 1*l.* shares. This company paid 2,500*l.* for the business in shares, the vendors taking other 2,500 shares. It was intended by the company to make a gigantic thing of company pharmacy, as, after supplying Edinburgh and Leith, other towns in Scotland were to get branches. So far as Edinburgh is concerned, this promise has been faithfully kept, as, in addition to the shops in Leith, the Depôt has branches at 297 Canongate, 29 Dalry Road, 15 Argyle Place, 1 Earl Grey Street, and 16 Nicholson Street, Edinburgh, which are amongst the best populated centres in the city. It has a wholesale warehouse in Leith, from which all the branches are supplied with goods. Mr. A. W. Gray looked after all the shops, it being his custom to drive from one to the other in a natty little phaeton. Prices were cut to the bone, much energy was displayed in advertisement, and some time ago a wholesale price-list was issued. All the establishments were well appointed, and we have heard from reliable sources that the business done was immense. Thus in the Nicholson Street shop 150*l.* to 180*l.* a week was very commonly taken. The Earl Grey Street shop was an old-established pharmacy which few chemists would look at. It was a corner, and that was the best of it, for the business had dwindled down to about 5*l.* a week when Mr. Gray bought it, remodelled the shop, made it attractive for display, and the first week it was opened the sales amounted to between 70*l.* and 80*l.* The other shops were also doing a large



business; indeed, they must have done at the extremely low prices which were charged, so as to enable the company to pay a dividend. However, all things come to an end, and there was a limit to Mr. Gray's energies. We heard a few weeks ago that the directors had dispensed with his services, and we had a call from one of his co-managers in reference to the matter. It was then explained to us that the directors could not dismiss Mr. Gray; there was the agreement between him and the company to get over first, and he was one of the largest shareholders. The disagreement arose, said our informant, from Mr. Gray's determination to push a perfume for which the Depot was awarded a gold medal at the Edinburgh Exhibition. The directors were contented with pharmacy, and wanted no perfume. Mr. Gray's reinstatement as manager was only a question of time, as he only required 5,000 shares to be on a footing with the objecting directors, and he was arranging to purchase these. It would seem that this has not come off. Our informant also gave a glowing account of the operations of the Depot, and stated that an attack on London was in the near future. London "cutters" were to be shown how to "cut"; but we presume that this lesson will be delayed somewhat now. What the future of the Depot will be has yet to be learnt.

### THE CHEMISTRY OF ORGANIC DYES.

THIS subject was treated at great length on Thursday evening, November 6, before the London Chemists' Assistants' Association, by Dr. F. W. Passmore. Premising that he should confine himself strictly to the pure chemistry of the organic dyes, the essayist pointed out that little is known of the fundamental cause of colour in these substances, but a relationship had been made out between certain groups and the phenomenon of colour in compounds where they were present. O. N. Witt devised the law that the colour of an organic body is due to the presence within the molecule of a certain group or "chromophore," by the introduction of which a more or less coloured body, the "chromogene," is produced, which, though not a true dye, is rendered such by the further introduction within the molecule of other radicals. As true dyes are understood to be substances capable of imparting colour to other bodies, such as silk, wool, cotton, &c., the process of dyeing seemed to be connected with the formation of salts by the dyes and some constituents of the fibres treated thereby. Thus, the free base, rosaniline, is colourless, but fibres dyed by it are coloured like its salts. The most important chromophores were: carbonyl, CO; the azine group,  $=N-N=$ ; and the azo group,  $-N=N-$ . Besides these, however, there were also "auxochromes," such as hydroxyl, OH, and the imido group, NH, which modifies the colour of that chromogene. Another factor in the value of a substance as a dye is the presence of such groups as  $SO_2OH$  and  $COOH$  ("salt-builders"), which lend the dyes salt-forming properties. Chromophores are never an entirely neutral group. The chemical classification of the organic dyes is based upon the chromophores they contain. Thus arranged they fall into twelve classes: (1) nitro compounds, (2) azo compounds, (3) ketone compounds, (4) triphenyl-methane compounds, (5) quinone imides, (6) indulines and negroines, (7) phtaleines, (8) the indigo group, (9) oxy-quinones and quinone oximes, (10) chinoline and acridine compounds, (11) azine compounds, (12) natural dyes of unknown composition. The first three groups contain chain chromophores; the next three, ring chromophores in the  $\mu$  position; and the next five, ring chromophores in the  $\sigma$  position. Of dyes of the (1) class, picric acid, Victoria orange (dinitro-cresol), dinitro-alpha-naphthol, a beautiful gold colour, heliochrysin (tetranitro-alpha-naphthol), tetranitrodiphenol, iso-purpuric acid and aurantin (hexanitrodiphenylamine) are still used. Most of the dyes of this class have been displaced by those of (2) the azo group, chiefly employed for woollen materials. This includes helianthin (sodium dimethylamidoazobenzol-sulphonate), used for butter and stearin candles, chrysoidine, Bismarck brown (triamidophenylene hydrochlorate), and a vast number of others, prepared from azo-naphthol compounds, from alpha- and beta-naphthols combined with

any of the diazo compounds. Tri- and tetr-azo compounds are also made. In the same class are the new ingrain colours, characterised by their stability. The parent substance of these, diazoprimuline, is very sensitive to light, and might possibly be used in chromo-photography. Among the colours of class 4 are malachite and brilliant green, rosaniline (triamidodiphenyltolylcarbinol), iodine green, and others. In class 5 we have phenylene blue, methylene blue (a sulphuretted phenylene blue), aniline black; in 7, phenolphthalein, fluoresceine, and eosine (tetrabromofluorescein); in 8, indigotin, &c.; in 9, alizarine, purpurin and flavopurpurin, and naphthol green (a chinone oxime); in 10, berberine (the only known natural basic dye); in 11, safranine and magenta red; and in 12, hæmatoxylin, curcumin, litmus, carthamin, and cochineal. Canarin and murexide cannot at present be included in any class.

The discussion was prolonged and interesting. The chairman, Mr. Lloyd Williams, referred to the inauguration of the aniline colour industry by Dr. Perkin, and to the use in analytical chemistry of various compounds of the classes named, and asked if there was yet any definite knowledge of the constitution of chlorophyll. Mr. Martindale alluded to the interest of the subject, and commended its lucid treatment; Mr. Ellwood alluded to the desirability of obtaining non-poisonous dyes, asking which of the classes yielded the best dyes for paper. Mr. Helbing called attention to the effect upon materia medica of the development of the chemistry of aniline colours, and to the use of aniline dyes themselves (as methylene blue and pyocyanin) in medicine. "Wanted, a perfect non-poisonous aniline black," was the text of Mr. F. A. Rogers' remarks; while Mr. Richards was struck by the difference between the specimens passed round and those which he had previously met with. The possible employment of chlor-aniline in the dyes industry was touched upon by Mr. Seccombe. Dr. Passmore rose again towards midnight with a whole battery of questions to reply to. In reference to chlorophyll, he said it was only known that it could be split up into several bodies, and contained iron. As writers on dyes he spoke well of Mochlaw and Nietski. Dr. Passmore did not encourage Mr. Rogers much in his search after a perfect black dye, but quieted Mr. Richards' doubts about the nature of eosines and aniline blues by observing that various mixtures were made commercially to attain different shades, and that he knew nothing of the history of the samples shown (which mostly hailed from Bloomsbury Square). Respecting the physiological action of the dyes something was also said. Thus it appears that resorcin and naphthol greens are innocuous and poisonous according to whether they are given by the mouth or hypodermically: picric acid, Martius yellow, and No. 2 orange are also toxic. Vomiting, diarrhoea, albuminuria, and other symptoms may be produced by the various classes of dyes.

### Personalities.

MR. BENJAMIN SHAKERLEY has been appointed local secretary at Penzance for the Pharmaceutical Society.

MR. HERBERT ELBORNE, chemist and druggist, late of Cambridge, has bought the business of Mr. W. J. Urquhart, 69 King Street, East Toronto, Ontario.

MR. C. H. SOUTHWELL, Ph.C., Boston, has been elected public analyst for the Holland Division of Lincolnshire. There were twenty-one applicants for the post.

MR. WM. FRANCIS UMNEY, M.R.C.S., of St. Thomas's Hospital Medical School, was amongst the successful candidates at the recent examination for the licentiatehip of the Royal College of Physicians, London. Mr. Umney is a son of Mr. Charles Umney, ex-president of the British Pharmaceutical Conference.

At a dinner given in the New Phoenix Hotel, Morpeth, on Tuesday—the Mayor (Councillor J. W. B. Anderson) in the chair—Councillor F. E. Schofield, ex-Mayor (chemist and druggist), was presented with a knife, fork, and spoon, together with an epergne, on which was the following inscription:—"Presented to F. E. Schofield, Mayor of Morpeth, as a testimony of respect, and to commemorate the birth of a daughter during his year of office, 1890."



## THE PHARMACY BILL CONFERENCE AT LIVERPOOL.

ON the invitation of the Council of the Liverpool Chemists' Association, Mr. Carteighe, President of the Pharmaceutical Society of Great Britain, addressed a meeting held on Thursday afternoon, at the Royal Institution, Colquitt Street, Liverpool.

In the circulars calling the meeting, of which some four hundred had been issued, it was stated that the proceedings would assume the form of a conference, to which all the chemists of the district were invited. At 3 P.M., when business was timed to begin, the attendance in the lecture hall did not exceed forty, but ten minutes' grace resulted in a considerable additional arrival, and in the end the total number was about ninety.

Amongst the towns represented, in addition to Liverpool, which contributed the bulk of the gathering, were Birkenhead, Chester, Southport, and St. Helens. Dr. Charles Symes, President of the Liverpool Chemists' Association, took the chair; and Mr. Carteighe was also supported on the platform by Mr. Richard Parkinson, Local Secretary of the Pharmaceutical Society, Mr. Jobu Bain, Hon. Secretary of the Liverpool Chemists' Association, and Mr. A. C. Abraham.

The CHAIRMAN began by expressing the hope that the presence of reporters would not hinder a free expression of opinion on the part of those present, as the reporters represented only the trade papers. They were not afraid of the public knowing anything they had to say; but sometimes gentlemen were afraid to say freely what they thought, lest the public, misunderstanding it, might think they were advocating their own interests, and not the interests of the public. Having thus reassured the timid, the chairman explained the object of the meeting, and said that Mr. Carteighe, whom they had met to hear, had a good deal of faith in himself—(applause)—and that was a great thing for the President of the Pharmaceutical Society to have—indeed, it was essential—and Mr. Carteighe believed he could answer all the criticisms that might be brought against the draft Bill. To say nothing of Mr. Carteighe's Alpine exploits, which were known to the whole world, he was well known to all present as the President—he was going to say the permanent President—of the Pharmaceutical Society, and, therefore, any further introduction of him would be superfluous.

Mr. CARTEIGHE, who had a favourable reception, gave an exposition of the Pharmacy Bill, which differed in no material respect from that given at Manchester. He laid emphasis on the education and consolidation clauses. He said he saw some of them smile when he talked about education and consolidation, but he thought there was a great deal of good in it. He knew he was not making much headway on the point, but he found that wherever he had an opportunity of talking with people in a friendly way, as he had now, the proposals of the Bill had been received not only with unanimity, but with acclamation. With reference to the seventh clause, which he called the only trading clause in the Bill, he claimed that it would increase legitimate dispensing, and improve their position with regard to medical men and others. If by remaining outside a man allowed himself to be dragged down to the level of the huckster, of whom he complained for selling poison, whom had he to blame but himself? Much might be done with union; without it comparatively little.

The address was quietly, but favourably, received, and discussion was invited.

Mr. A. C. ABRAHAM said that the Bill was practically unopposed on the Council of the Society, although there were several members, of whom he was one, who would have liked to have seen other things in the Bill, and who believed it feasible to obtain more than the Bill asked for. At the same time a large majority of the Councilmen, whose experience ought to count for something, thought the Bill embodied all they were likely to get. He hoped there would be full and free discussion.

Mr. GEO. R. SLEGGs said they came there to discuss trade matters and not the Pharmaceutical Society, a society which he considered had been very disappointing. He would like

Mr. Carteighe to explain how it was that business had fallen off so much in Liverpool during the last twenty years, particularly on the outskirts of the city.

Mr. J. TURNER said the President, by calling them hucksters, has brought pharmaceutical chemists down to a level to which they had never been brought before. He had never heard them called hucksters before. (Laughter.) The crux of the question, it appeared to him, was this—that they wanted medical men to be more liberal minded and have more confidence in druggists, who would be willing to give them a *quid pro quo* in the way of sending customers to them. He wished well to the Bill, but he informed Mr. Carteighe, courageous man and Alpine explorer as he was, that clause 7 was a paltry affair. (Hear, hear.)

Mr. WM. WRIGHT, the next speaker, took exception to Mr. Carteighe's use of the word "hucksters," whereupon Mr. Carteighe explained that he used the word in no offensive spirit. All he meant to say was that, if an educated man went into the outlying districts where there were no prescriptions to dispense, and allowed himself to drift and drift until he became merely a huckster of other people's preparations, it would be a very bad thing for him. Mr. Wright proceeded to complain of the absence from the Bill of any provision about the stores.

Mr. J. J. SMITH said it seemed to him that there would be some opposition to clause 7. He did not want to criticise the clause unfavourably, but it appeared to him that it dealt rather severely with the qualified man.

Mr. JOHN SMITH moved a resolution declaring that no Bill would be satisfactory which did not prevent corporations from using the title and carrying on the business of chemists and druggists. He said he considered clause 7 a reasonable clause. They could not expect to get everything and give nothing. The point at which the great difference arose was exactly the point at which the Bill ended. He did not disagree with a single clause in the Bill; but thought no Bill was adequate which did not try to keep unqualified persons and corporations out of the trade. The curriculum would be of service in the future; but what was wanted was a measure that would be of use in the present. (Hear, hear.) He reviewed the objections offered to the provision he proposed and characterised them as insufficient. Parliament would not go on reforming the Pharmacy Act year by year, and they ought to try to get all defects remedied at once. If it was difficult now to obtain a clause dealing with the bogus companies, it would be ten times more difficult ten years hence. It would be time enough for them to believe such a clause could not be passed when the House of Commons told them so. (Applause.) The widows clause was not such a boon as it once was, and he thought they would be ill advised to retain it if thereby they would diminish the hope of passing such a clause as that which he suggested.

Mr. J. H. WARD seconded the resolution. He said the Bill was utterly and entirely a mistake, for the simple reason that its foundation was not good. The Bill was brought forward merely upon a hypothesis, upon a conjecture, which was that if you qualified and produced a highly-educated chemist the British public would voluntarily pay him for his services. They had no ground for supposing that such would be the case. In every-day life services were appraised, and would probably continue to be appraised, by the inevitable law of supply and demand, and this was as it would be with chemists' services now and in the future. The education under the Bill would cost a great deal more money without improving the quantity or quality of the returns. There was nothing in the Bill which would confer the entire drug trade on the druggists of the future. The trade was to be allowed to remain open to unqualified dealers, with the result that things would be in a thousand-fold worse condition in the future than they were to-day. He further predicted that the Bill would do great harm to the Pharmaceutical Society by diminishing the number of candidates for examination, and diminishing the number of members, and thereby reducing the amount received in fees and subscriptions.

Mr. ADAMS (Southport) said the supply and demand system which Mr. Ward had advocated was a system that led to sweating. He further expressed his admiration of Mr. Carteighe—(applause)—and said he believed that educated chemists would get better prices than uneducated chemists.



In Southport, he added, an opinion prevailed that something should be done to restrict the sale of poisonous patent medicines.

Mr. H. PEET said that since restriction was considered desirable by the people of the country and the Legislature, it was important that the restrictions in the Bills should be as strong as possible.

Mr. HAROLD WYATT expressed approval of the Bill, which, he said, would be of great advantage to the trade.

The CHAIRMAN, in summing up the discussion, said he was in favour of a curriculum, but he felt bound to admit that the necessity for it was not one-fourth what it was seven years ago. The Bill, he pointed out, in no way attempted to restrict the use of the title chemist and druggist, and this he thought was a vital point. It did seem a pity for them to put more restrictions on themselves, and yet leave the field so wide and so open. It seemed to him like putting a new gate on a field, and leaving the hedge broken all about it. But they were told they could do nothing with the companies unless they were logical, and dropped the widows clause. The widows clause was a very excellent clause, and he should be sorry to see it done away with. He supported the Bill in a great measure, but could not support it out and out unless there was an attempt made to restrict this miserable limited company business. (Hear, hear.)

Mr. CARTEIGHE rose to reply to a rapidly diminishing audience, the meeting having by this time lasted three hours. He said they had spoken to him of their grievances instead of giving him what he wanted, namely, suggestions for constructive legislation. He replied to the chief objection raised to the Bill in almost the same words, and to precisely the same effect, as he had spoken at Manchester, pointing out that they had to aim at what was practicable, and that nothing could be done without a union of all the men in the craft.

The CHAIRMAN suggested that in view of Mr. Carteighe's explanation, Mr. Smith might like to withdraw his motion; but Mr. Smith declined. Thereupon Mr. Abraham moved, and Mr. Wyatt seconded, an amendment expressing approval of the draft Bill. On a show of hands being taken, 16 voted for the amendment and six against it, from which it will be seen that by this time the meeting had become much attenuated. The amendment was then put as a substantive resolution, and carried *nem. con.*

The customary votes of thanks concluded the meeting, which lasted 3½ hours.

In the evening a number of chemists dined together and with Mr. Carteighe at the Royal Restaurant, under the chairmanship of Dr. Symes.

**THE POISON REGISTER.**—A chemist at Brooklyn, N.Y., refused to show his poison-book to a man who thought that his wife had been in the habit of purchasing opiates of him, and he was arrested and brought to trial recently; but he has been acquitted on the ground that no reason was given why the book should be shown.

**A PATIENT POISONED BY AN APOTHECARY.**—At Buda-Pesth a painful impression has been created by the death of one of the judges of the Royal Court. The deceased was suffering from acute pains in the stomach, for which the doctor ordered injections of ether. The remedy had scarcely been applied when symptoms of poisoning appeared, and the judge died. Almost immediately the apothecary's assistant appeared, saying that he had mistaken the bottle and sent the wrong drug.

**STRYCHNINE SOLUTION IN THE MORPHIA BOTTLE.**—The adjourned inquest on the body of the woman Bennett, whose death was caused by a mistake in dispensing strychnine for morphia, has been held at Wellington, New Zealand. It will probably be remembered that the adjournment was agreed upon to enable a former assistant of Mr. Fitzgerald, chemist, Wellington, to attend and give evidence, he, it was alleged, having filled the morphia stock-bottle with strychnine. Mr. W. R. Cumberworth (the assistant) gave evidence from which it appeared that although he attended to the filling of the bottles, and generally to the stock, he did not remember having filled the bottle in question. After further evidence, the jury found a verdict of accidental death, it not being ascertainable who filled the stock-bottle mentioned.

## Trade Report.

*Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.*

*It should also be recollected that for many articles the range of quality is very wide.*

42 CANNON STREET, E.C., November 13.

**B**USINESS in the drug and chemical markets (excepting always heavy chemicals, in which the establishment of the Alkali Union continues to create some stir) has been unusually dull this week. The drug sales held to-day were of moderate length, but they dragged along in the most wearisome manner, and the markets generally remained stagnant. The principal feature in the fine chemicals is the advance in cocaine; while citric acid is also slightly firmer. Tartaric acid, on the other hand, is slightly lower, and quinine shows no improvement; quicksilver dull and weaker. In drugs, gamboge, honey, American and Japanese peppermint oils, menthol, and Peru balsam are firmer, and the same tendency is manifested by Calabar beans, juniper berries and Senegal gum arabic. Jalap, ipecacuanha, nuxvomica, cardamoms and Cape aloes are firm or steady. On the other hand the following are easier in value:—Saffron, cascara, cubebs, colocynth, ordinary Tinnevely senna, Sumatra benzoin, first-pile Tonquin musk, and kola nuts. In the outside markets we note that benzol has farther advanced; but Guinea grains, ordinary castor oil, Japan wax, gambier and shellac are lower in price.

**GUM TRAGACANTH AT THE DRUG SALES.**—There is an old rule that no gum tragacanth should be included in the drug auctions, that article having periodical public sales of its own. But one of the catalogues of to-day's drug sale included no less than 34 cases of tragacanth which it was intended to sell "without reserve." No sooner was the first lot of this parcel reached than its sale was objected to by one of the druggists, after which Mr. R. Barron formally proposed that the gum should not be allowed to be sold there, and desired to hear the opinion of the room. The broker, however, demurred to this, and said he did not see why he should be boycotted for selling the gum, and he did not think fair play was being shown him. Mr. Hoiner rose to second Mr. Barron's motion, and, it being generally desired that the motion be put to the room, the broker gave way. On show of hands seventeen votes were given against the sale and supporting Mr. Barron's motion, and as no hands were shown on a call for the other side, the gum was withdrawn.

**ACID (CITRIC).**—At to-day's auctions 3 casks and 51 kegs—the latter said to be Kemball's make—sold, with good competition, at what must be called good prices—viz., 1s. 3¼d. to 1s. 3½d. per lb., usual terms. Privately the market is steady, but quiet, 1s. 3¼d. per lb. being the nearest quotation. Our citric-acid exports during October amounted to 589 cwt., bringing the total for the ten months up to 5,506 cwt.

**ACID (TARTARIC)** can be had at somewhat lower prices, *English* makes at 1s. 2½d. to 1s. 3d., and *Foreign* brands even at 1s. 2¾d. per lb.

**ACONITE.**—Three bags *Japanese* root sold at 38s. per cwt., "subject to approval."

**ALOES.**—Of *Cape* aloes two parcels, together 74 cases, sold at steady prices: fairly good bright hard, 22s.; rather drossy, 21s. 6d.; and a few dull and ordinary, 17s. 6d. to 19s. One lot, mostly stones, bright, 5s. per cwt. *Curaçao* aloes exceedingly dull and neglected. The offerings were not very large, but of about 120 cases shown only 65 sold with difficulty at 13s. to 13s. 6d. per cwt. for ordinary dark and Capey. *East Indian* aloes in small supply; three cases old



Socotrine in skins sold well at 95s. to 97s. 6d. for brown to yellow, hard. A parcel of 12 cases low black stony stuff from Aden was to be sold without reserve, but not even 1s. per cwt. was bid for it. Fine Zanzibar aloes are rather scarce, and in demand.

ANISE.—The price asked for 50 bags *Russian* anise, shown at to-day's actions, is 17s. per cwt., while a lot of 30 bags *Italian* anise sold, without reserve, at 23s. to 24s. per cwt.

ANNATTO.—Twenty-two bags fair Ceylon seeds sold at 2½d. per lb.

BALSAMS.—From Hamburg a revival of the speculative demand for *Peruvian* is reported, and prices have undergone a fresh advance. Of 5 cases offered at auction to-day one sold at 5s. 6d. per lb., being 8d. per lb. above the price paid at the previous sales. Of *Copaiba* 2 casks very thin yellow sold at 2s. 2d. per lb., while for one cask dark greenish treacle (probably from West Africa) an offer of 1s. was made and refused.

BENZOL.—Again dearer, 90-per-cent. being now quoted at 4s. 9d. on the spot, and 50-per-cent. at 3s. 6d. to 3s. 7d. per lb. The continued rise in this material will affect several articles of pharmaceutical interest; the price of antifebrin has recently been raised as a result of the greater cost of raw material.

BUCHU.—Several lots were offered to-day, but they were nearly all of very poor quality. Yellowish round leaves of good flavour sold somewhat cheaper than at the previous sales—viz., 5½d. per lb. Several bales of long leaves of very poor colour and flavour sold at 3½d. to 3¾d. per lb.

CALABAR BEANS.—A better demand is reported from Liverpool, where sales have been made at 5½d. per lb., being ½d. dearer.

CALUMBA.—About 100 packages were shown at to-day's auctions, but only 30 sold, without reserve, at 15s. per cwt., the quality being rather dull, grey mixed, and slightly wormy.

CAMPHOR (CRUDE).—The market has been very slow since our last report, and 8l. would still be the nearest price for *Japan* camphor on the spot, and 7l. 10s. per cwt. c.i.f., the quotation to arrive.

CAMPHOR (REFINED).—Steady, but unaltered. *English* bells remain at 2s. per lb. from the makers. *Foreign* refined is being offered at 1s. 9½d. per lb. net, London terms. It is said that a few days ago several cheap second-hand lots changed hands in Hamburg, but that the supply has now all been taken off the market.

CANNABIS INDICA.—Forty-nine robins which have been shown at the auctions before, were again offered, but no sales were effected. Good bright green tops are held for 5d. per lb., brown dusty and specky ditto for 4½d.

CANTHARIDES.—*Russian* cantharides are now quoted at 3s. 6d. per lb. This price was asked for a parcel shown at to-day's auctions, and for this 3s. 5d. per lb. was refused.

CARDAMOMS.—A fairly good selection and average quantity were offered at to-day's auctions, but the demand, especially at the beginning, was dull, though afterwards it improved a little. The greater part offered retired unsold, and what did change hands shows no alteration in value. The following prices ruled:—*Mysore*: Good pale, 2s.; small to medium long and yellow, 1s. 6d. to 1s. 8d.; smaller ditto, 1s. to 1s. 2d. *Malabar*: For good plump, but very yellow M.M.M. brand, 1s. 8d. is required. *Malabars*: Medium to bold round and pulish, 2s. 4d.; smaller size, 1s. 6d. to 1s. 7d.; small to medium round brown, 1s. 2d.; very small pale, 1s. 1½d.; round to brown and partly split, 10½d. to 1s. per lb. *Aleppy*: Very wormy to bold brown, badly clipped, 1s. 1d. to 1s. 2d. Seed sold at 1s. 6d. per lb.

CASCARILLA.—A parcel of 33 bales was offered to-day, but very little demand was shown, and only 5 bales small and thin mixed, of fairly good colour, sold at 26s. per cwt.

CASCARA SAGRADA.—Dull of sale; 61 packages offered at to-day's auction were all bought in, an offer of 30s. being refused for some fine silvery small bark mixed with broken quill.

CINCHONA.—Among the bark offered at to-day's auctions was some *red* South American bark which had already been shown at the cinchona auctions. It sold at 1s. 6d. to 2s. less than was demanded for it on that occasion, bold old flat bark of fair colour bringing from 6s. to 6s. 4d. per lb.; ordinary dull chips and pale orange split quill, 2s. per lb. A large quantity of flat *Calisaya* was also offered, and of this 129 sold at 1s. 5d. to 1s. 6d. per lb. for good bright sound, and from 10d. to 1s. 2d. per lb. for damaged. Bold, but damaged, flat *Carthagena* brought 5½d. to 6d. per lb., this sale being without reserve.

CIVET.—Ten small horns, only 12 oz. each, of good quality, were offered to-day, and 6s. 9d. is the price suggested for them.

COCA LEAVES.—Two bales *South American*, fair greenish broken leaves, good flavour, are held for 1s. 2d. per lb.; and two 40-lb. bags of dark, bold, strong *Ceylon* leaves (*Iluanoca* character) sold cheaply at 4d. per lb.—they were sea-damaged.

COCAINE has advanced. It is still possible to buy at 18s. per oz, usual terms, but one of the manufacturers has already raised his quotation to 19s., and is talking of quoting 20s. soon. It is said that the available supplies of crude cocaine are exceedingly small, not only in Europe, but also in South America, and the manufacturers state it as their belief that the rise has by no means reached its limit yet. It is asserted that there is very little coca leaves to be had anywhere, and that none will be brought to market now in South America for some months, while the autumn crop has been quite killed by frost.

COCCULUS INDICUS.—Very firmly held. Of 67 packages offered to-day one lot sold at 13s. per cwt.

COLOCYNTH.—Lower in price. A parcel of good pale Turkey apples imported from Alexandria sold at 1s. 1d. per lb. for the first lot, after which a good demand set in, and 20 packages were disposed of at the same price, being a decline of 1d. per lb.; for small apples only 1s. 1d. was bid, and these were not sold. Another parcel of good dark is held at from 1s. 5d. to 1s. 6d. for the best lots, and 20 cases newly imported from Batoum, small to medium palish but partly shrivelled and seedy apple, were bought in at 1s. 3d. per lb.

CREAM OF TARTAR remains weak, but unaltered in price, at 97s. 6d. per cwt. for best white French crystals.

CUBEBS.—For 10 bags, imported *via* Amsterdam, very small shrivelled dusty and stalky grains an offer of 16l. 17s. 6d. per cwt. was refused.

CUMIN SEED.—Several parcels were disposed of to-day; for very fine new Malta 29s. per cwt. is asked; darkish to fair flavoured sold at 21s. to 22s.; and 42 packages from Genoa, terribly worm-eaten and partly damaged, realised from 10s. to 11s. 6d. per cwt.

CUTCH.—The market remains firm for fine qualities, and a small business at 33s. for "Bull," 32s. 3d. for Flag BB, and Star B brand at 33s. per cwt. is reported. At Tuesday's dry-saltary auctions about 500 boxes of very common quality were shown, but all bought in at nominal rates.

CUTTLE FISH.—Dull of sale, and still pointing downwards. Twenty barrels fairly good pale, but damp, from the Cape, sold at 2¼d. to 2½d. per lb.; ordinary discoloured at 1½d. per lb.

DAMIANA.—Of 3 bales shown to-day 1 sold, good bright colour, but rather stalky mixed, at 10d. per lb.

DRAGON'S BLOOD.—The only parcel offered to-day consisted of 15 cases low bold broken saucers of dull grey fracture, which sold rather cheaply at 30s. per cwt.

ELATERIUM may be had at 2s. 3d. per oz. for fair quality; but for one lot of very fine dark-coloured tablets shown to-day an offer of 2s. 8d. was refused.

ERGOT OF RYE is reported in rather better demand, and 1s. 3d. is generally quoted for good new Spanish ergot; but at to-day's auctions 10 bags answering the description sold at 1s. 2d. to 1s. 2½d. per lb.; for another lot an offer of 1s. 2d. was refused; 12 bags wormy *Russian* also sold, subject to approval, at 11d. per lb.



**GALLS.**—Good to fine blue *Bassorah* galls may still be had at 55s. to 58s. per cwt., green at 50s. to 52s., and white at 45s. to 48s. per cwt. A rather large quantity of galls shown at to-day's auctions was nearly all bought in. At the auctions on Tuesday, 112 cases *China* galls were bought in at 62s. 6d. per cwt. The market price for good quality is nominally 61s. to 62s. per cwt.

**GAMBIER.**—The market for *block gambier* is again lower, and closes dull with sales on the spot at 22s. 6d. For November-December shipment, 23s. 3d. per cwt. has been paid. *Cube gambier* sold at a decline of 2s. per cwt. at the weekly auctions, 201 bags free cubes realising 36s. per cwt.

**GAMBOGE.**—Fourteen cases, including some of very fine quality, were shown to-day, and found a ready market at an advance of 10s. to 15s. per cwt.; fine loose pipe, good bright orange fracture, partly broken, selling at 13l.; small and broken ditto not so good in colour, at 12l. 7s. 6d. to 13l. 10s.; small broken pipe and cakey, ricey in fracture, at 11l. 5s.; ordinary dull at 10l. to 10l. 10s.; and fairly good pickings at 9l. 15s. per cwt.

**GUINEA GRAINS.**—Seven bags of good bright quality, slightly stony mixed as usual, sold to-day at 31s. per cwt. From Liverpool the price is reported rather easier, with sales at from 27s. 6d. down to 25s. per cwt.

**GUM ARABIC.**—The market for *East Indian* gums remains dull, with very little business and no alteration in prices. For *Senegal* gums, owing to the paucity of the supply, more money is asked, although the higher rates have not yet actually been paid. Of *Golam* there is none in stock here. For *Bas de Fleuve* 70s. per cwt. is wanted. Fine *Mogadore* gum is in very small supply: good white has sold privately at 11l. to 11l. 10s. per cwt. Several lots of this gum, rather dusty, were bought in at 11l. 10s. per cwt. For 3 casks rather orange coloured gum 8l. 10s. was paid. One fair but rather dark *Alexandrian* gum is held for 10l. 10s. per cwt.

**GUM BENZOIN.**—The supply offered to-day was far in excess of the requirements, and as a consequence the market has become exceedingly flat, and only a very little was disposed of, partly at low prices. Of *Siam* gum 14 cases fine bright, partly blocked, small to medium almonds, were shown, and 15l. was suggested for these, but no sales were made; another lot not so good is held for 13l. per cwt.; and some ordinary grey blocky siftings, partly loose, at 5l. per cwt. A parcel of old *Penang*, probably imported seven or eight years ago and re-shipped from the Continent, but of good almondy quality, was bought in at 5l. per cwt. *Sumatra* gum entirely neglected. Of 10 cases fine white almondy seconds of good flavour, and fairly well packed, six were sold at 9l. 10s. to 9l. 12s. 6d.; two cases old fracture, but otherwise good almondy seconds, brought 7l. 12s. 6d.; and a parcel of rather false-packed red-bordered seconds, sandy, and containing but few almonds, sold very cheaply at from 90s. to 95s. per cwt. The arrivals still continue on a pretty heavy scale.

**GUM ELEMI.**—Fine quality is still held for very high prices, but 10 cases just imported are said to include some very good elemi. At auction 4 cases very dark and hard, but of good flavour, were held for about 25s. per cwt.

**GUM GALBANUM.**—The spurious gum from Abyssinia in bright orange tears, which is now regularly offered in the name of galbanum, was again shown to-day. It is said that privately as much as 70s. per cwt. is paid for this article.

**GUM GUAIAECUM.**—A parcel which was offered sold at 1s. 3d. per lb. for rather dark, partly good resinous, mixed black, and 1s. for black and loose mixed, rather stony.

**GUM MYRRH.**—The market is quite flat and dull, and only 4 barrels of pickings sold to-day at 47s. 6d. per cwt. Fair sorts are selling privately in a small way at about 75s. per cwt., while selected is worth from 5l. 10s. to 6l. per cwt.

**HONEY.**—*Chilian* honey has been in strong demand in Liverpool throughout the week, and has realised higher prices. At to-day's auctions about 20 packages *Jamaica* honey were shown, of which 7 sold, rather dark brown liquid, at the high price of 41s.; while good clean amber liquid was bought in at 45s. per cwt.

**IODINE.**—Unaltered at 9d. per lb. All the iodides also remain unchanged in value.

**IPERCACUANHA.**—The 32 packages offered to-day met a fairly good demand, and, holders being firm, 18 sold at, on the whole, unaltered values. One small lot of pickings brought 8s. 4d. per lb., and the same price was paid for the bulk of good usual quality; rather wiry to good stout, bright, and sold at 8s. to 8s. 2d. per lb.; damages, from 7s. 10d. to 8s. 1d. per lb.

**JALAP** still remains very dear, and of the 9 bags offered to-day nothing was sold. The prices asked range from 1s. 11d. to 2s. 2d. per lb. for bold and heavy to small and dusty mixed *Vera Cruz*.

**JUNIPER BERRIES.**—Thirty bags old berries sold at 12s. per cwt. From Italy, 6s. 6d. f.o.b. Leghorn is quoted, and the crop there as well as in Hungary is described as an exceedingly poor one and prices are likely to advance further.

**KOLA NUTS.**—One barrel of mouldy *West Indian* seeds was offered to-day and bought in at 2s. 6d. per lb., an offer of 1s. 6d. being refused for it. Besides this 5 bags of dried kolas were shown, and for one of these a bid of 1s. 7d. was declined. In Liverpool the prices are rather easier, and sales have been made at 1s. 6d. per lb., but the quality offering there is exceedingly low and nearly all wormy.

**LIME JUICE.**—Twenty-two barrels rather dirty from Montserrat are held for 1s. per gallon, a bid of 10d. being refused.

**MUSK.**—A good supply of *Tonquin* pods was offered to-day, and prices for first pile, of which very little was sold, were about 3s. lower. On the other hand, third-pile pods brought fully as high rates as at the previous sales. The following prices were paid:—First pile, very fine bold blue-skin pods, dry and good yielding (an unusually fine caddy), 85s. per oz.; 3 caddies old-fashioned, fairly-dry, and well-shaped pods, 63s. per oz.; 16 other caddies of first pile were all bought in. One caddy second-pile good usual pods, but exceedingly skinny, brought 44s. Of 23 tins third pile 14 sold: for fine small to bold blue-skin, but adulterated, pods 62s. was refused; small to bold pods, fairly dry but very skinny and badly-trimmed, sold at 27s. 6d. to 29s.; damp ditto, at 27s. 6d. to 28s. per oz. One tin Thibet pods, very hairy, sold without reserve at 20s. per oz.

**MUSK SEED.**—Twelve cases rather ordinary of not particularly fine flavour sold without reserve at 3½d. per lb.

**NUX VOMICA.**—Very firmly held, and a few lots sold at high prices; small to medium fair silky, 9s. 3d. to 10s. per cwt. For 168 bags from Bombay, small to good pale silky, which have been offered before, 10s. 6d. is still the limit.

**OIL (CASTOR).**—Of *Italian* oil, 10 cases good pale sold to-day at 4½d. per lb., without reserve. The price for *French* oil of the first growing on the spot is 34s. per cwt. In Liverpool the prices were on the decline last week, closing at 3½d. to 3½d. per lb. for *Calcutta*, and 3½d. per lb. for *Madras* oil.

**OIL (OLIVE).**—The new *Italian* crop is generally good, although it is said that in Tuscany the olives are not doing so well as could be wished. Cream is quoted at 68s. to 75s. per cwt., sublime at 65s. to 72s., and superfine at 60s. to 69s. per cwt., f.o.b. Leghorn. Reports from the south of France remain very good—the crop is likely to be an excellent one, both as regards quality and quantity; but of last season's oil hardly any is left in stock. Congo oils very firmly held—*Mogadore* at 37s., *Spanish* at 40s. to 42s. per cwt.

**OILS (ESSENTIAL).**—*Peppermint* oil is again quoted higher, 14s. 9d. to 15s. per lb. being now wanted for H.G. 11, but the market has become quieter, and we do not hear of much business. At auction the price of 15s. was asked for a few cases, but there were no offers. *Japanese* oil is also firmer at 5s. to 5s. 6d. per lb., according to quality. *Menthol* also rather dearer at 9s. 3d. to 9s. 6d. per lb. for good usual white crystals. Business has actually been done at 9s. 1½d. per lb., and from Japan 10s. per lb. c.i.f. is quoted for shipment. Of *Star-anise* oil 10 cases were sold by private contract at a price not reported. Fourteen cases *Lime* oil from Dominica sold at 1s. 8d. per lb. For 10 cases *Cassia* 3s. 9d. per lb. was suggested without response. For two cases



*Nutmeg paste* from Penang 2½*d.* per lb. is the price, 2*d.* being refused. *Citronella* and *Lemongrass* steady, but unaltered.

**OPIMUM.**—Our market is firm without any special feature. Reports from Smyrna, dated November 1, report a declining market. The winter sowings have been made, it is said, under very favourable conditions, and on an unusually large scale, in consequence of abundant rains which lasted for several days, and have been specially beneficial in the lower districts. Under the influence of these rains the Smyrna holders have given way, and rather heavy sales have been made at lower rates, much of the opium being bought by the American morphia-makers. The total stock in Smyrna at the beginning of the month was estimated at 1,500 baskets, of which 550 were of previous season. The arrivals were 1,270 cases against 1,520 cases at the corresponding date of 1889.

**ORANGE PEEL.**—Slow of sale, and quite neglected. For ordinary brownish *Malta* gelatine 7*d.* per lb. is the price, and 3*d.* for very low dark and quarters.

**ORRIS ROOT.**—Several parcels of *Mogadore* orris root were offered to-day, and some sold at 35*s.* per cwt. for the usual small dark and brownish quality. Another lot of 5 bags, partly very dark small and wormy, partly mixed with a medicinal root from the Levant, which is not used in commerce here, sold a bargain at 5*s.* per cwt. In Italy a fresh advance of price has occurred, but the movement is attributed in great part to local speculation, and it is said that very little has been sold for export lately. From 80*s.* to 90*s.*, f.o.b., is quoted for usual to fine bold white *Florentine*, and 40*s.* to 52*s.* 6*d.* for *Verona*.

**QUICKSILVER** has been drooping all the week. The importers still require 10*l.*, but second-hand holders have gradually come down to 9*l.* 14*s.* 6*d.* per bottle.

**QUININE.**—Our market has been very quiet this week, and almost the only sale reported is of a parcel of 5,000 oz. German from the makers at 12½*d.* per oz. January delivery. On the spot we make 12*d.* per oz. the nearest quotation. The imports of quinine into the United States during the ten months of the year were 2,850,000 oz., against 2,168,000 at the corresponding date of last year. It is reported that the departure to Europe from New York, during the last days of October, of a representative of one of the American quinine-works has given rise to a good many rumours as to the cause of his visit. In some quarters it is believed that his mission is connected with a plan to revive the effort to organise a combination of the producing interests of Europe and the United States. The Java Cinchona Planting Company, "Kertamanah," in Amsterdam, has paid a preliminary dividend of 6 per cent. for the year 1890.

**RHUBARB.**—A moderately large quantity was offered to-day, but the demand remained very slack, and only small proportions sold at generally unchanged prices, ordinary rough slightly wormy small to medium round *Shensi* pickings selling at 9*d.* to 9½*d.*; good small trimming root, round, at 1*s.* 9*d.*; small to medium fair, three-fourths good fracture, round, at 1*s.* 6*d.* *High-dried*: bold, fairly good fracture, at 1*s.* 2*d.*, a rather full price. *Canton*: round medium to bold, good fracture, 1*s.* 2*d.* to 1*s.* 6*d.*; ditto, partly spongy, 1*s.* 1*d.* to 1*s.* 2*d.* per lb.

**SAFFRON.**—The crop in Spain proves even larger than has been anticipated, and prices have again declined 2*s.* per lb. since last week. *Mexican* saffron is now being offered from New York.

**SARSAPARILLA.**—Eighteen packages *Jamaica* sold, good grey sound at 1*s.* 4*d.*, ordinary coarse at 1*s.* 2*d.* to 1*s.* 3*d.*, and damages at the same price. A rather considerable quantity of ordinary clumpy *Guayaquil*, all damaged, brought from 7*d.* to 8½*d.* Four bales *Lima Jamaica* sold at 1*s.* 1*d.*; and for good mealy *Honduras* 1*s.* 6*d.* is the price, 1*s.* 4*d.* being refused for another lot.

**SENNA.**—Nearly 800 packages *Tinnerelly* were offered, almost all of them of inferior quality; the lower grades sold at a decline, many parcels being bought in; but for good senna, which is exceedingly scarce, very high prices are paid; one lot of very fine bold green leaves brought 10½*d.*; several parcels of medium to bold fair greenish mixed,

4*d.* to 5½*d.*; ordinary yellow and specky greenish mixed, 2*d.* to 3½*d.*; common low and small, from 1½*d.* down to ½*d.* per lb. About 600 bales have arrived this week, and it is said that this is the last of the present season's crop. Of *Alexandria* senna about 32 packages fair small to good green leaves are sold at 1*s.* to 1*s.* 5*d.* per lb.—one lot selling at 1*s.* 3*d.*; for  *pods* the high price of 1*s.* 3*d.* per lb. is now asked.

**SHELLAC.**—From the close of last week until the auctions on Tuesday the market was in an exceedingly languid condition, hardly any business in futures being transacted, but prices being generally in favour of buyers. At the weekly auctions on Tuesday the rather heavy supply of 1,406 cases was offered. No less than 1,200 of these consisted of *Garnet* lac, mostly AC brand of old import. It was expected that the market would not be able to support the sale of so large a quantity without giving way, but holders seemed scarcely prepared to face the fall which actually occurred, and after selling about 200 cases worked *Garnet*, out of condition to good free AC, at 81*s.* to 82*s.* (a few lots at 83*s.*), withdrew the remainder. The decline, as compared with the preceding public sales of garnet lac, amounts to fully 10*s.* per cwt. Of fine *Orange* lac 10 cases sold without reserve at a drop of 12*s.* 6*d.* per cwt. on nominal prices, worked BSLS: blocky to strong bright red at 90*s.* to 99*s.* per cwt. *Bottom* lac also 5*s.* lower: Fair worked first, 90*s.*; good first to fine blood lac, unworked, 94*s.* to 96*s.* per cwt. Since the sales the market has continued to droop, and the following were the quotations at to-day's call:—

		Nov.	Dec.	Jan.	Feb.	Mar.	April
Orange TN, sellers	..	100/	100/	93/	82/	85/	84/
		at	at				
„ buyers	..	97/	98/	90/	83/	81/	79/

AC garnet nominal at the call. On the spot a fair business in garnet lac has been done for the States since the auctions at a recovery of 3*s.*, good AC having sold at 85*s.* per cwt.

ST. IGNATIUS' BEANS are offering at 45*s.* per cwt., c.i.f. terms.

**STROPHANTHUS.**—Green strophanthus, rather ordinary quality, is selling in the retail way at 6*s.* 9*d.*, and for brown seed from the West Coast 1*s.* 6*d.* has recently been paid.

**TEA.**—The general tone of the Congou market is easy, and common new Kaisow again sold at 4½*d.* on Tuesday, and fair common old Moning at 5*d.* Some useful new Monings may now be bought from 6½*d.* to 7½*d.*, and are worth attention, though they are not yet back again to the value shown at the lowest point about three months ago. There is very little demand for fine Moning. Scented teas are again lower and fair common new tea has been sold at 7*d.*; but the general feeling is that they will go lower, as the larger buyers are not inclined to support the market. *Assams* have kept fairly steady in the face of large sales and dear money, common leaf tea selling 7½*d.* to 7¾*d.*, and useful Pekoe Souchong at 8*d.* There are some very powerful Pekoe Souchongs to be bought from 9*d.* upwards, and no more telling tea for a blend can be desired than these grades put through a mill to reduce the leaf. Broken Pekoes from 10*d.* to 1*s.* are plentiful, and show good value, and a steady demand from Ireland absorbs them readily. *Ceylons* are very firm, and with light sales and a certain fixed demand from packers prices seem likely to be maintained for the present, although the general demand from the country for ordinary trade purposes is small.

**TONQUIN BEANS.**—Fifteen cases were offered to-day, but scarcely any sold. For fine bold frosted dark *Para* (Surinam kind) 5*s.* is wanted, an offer of 4*s.* 5*d.* being refused; foxy *Paras* are held for 4*s.* 3*d.*, and some very common damaged and ordinary beans sold at from 6*d.* to 1*s.* 8*d.* per lb.

**VANILLA.**—A fair quantity sold at unaltered prices, good crystallised chocolate, 6in. to 7½in. 13*s.* 6*d.* to 14*s.* 6*d.*; fair, 5½in. to 6½in. 11*s.* to 12*s.*; and ordinary, 5½in. to 7½in. palish and brown, at 9*s.* 6*d.* to 10*s.* 6*d.* per lb.

**WAX (CARNAUBA).**—Still rising in value. In Liverpool the price runs from 60*s.* for ordinary grey; up to 80*s.* for fine yellow wax.

**WAX (JAPAN).**—Rather easier. Fair palish squares are offering now at 44*s.* per cwt.



## CHEMICALS IN THE NORTH OF ENGLAND.

**THE UNITED ALKALI COMPANY.**—The principal topic of interest discussed in chemical centres in the north of England is the prospectus of the United Alkali Co., which has been widely circulated (although marked "for private circulation") amongst the various consumers of chemicals and friends of the vendors of the alkali-works controlled by the syndicate. It appears that the whole, or nearly the whole, of the ordinary shares, and one-third of the preference shares and debenture stock, will be accepted by the owners in part payment of the purchase-money, and the remainder of the preference and debentures offered for subscription. Forty chemical-works have entered the Union, and five more have agreed to have their businesses controlled by the same management. In addition to these they have also purchased three salt works. At two of the chemical-works considerable plant is in operation for the manufacture of soda by the ammonia process, and, with the aid of the salt-works, they will be able greatly to extend the ammonia-soda process if it is found advisable. The works embrace nearly the whole of the Leblanc manufactories of the United Kingdom, and contain plant for the manufacture of sulphuric acid, hydrochloric acid, bleaching-powder, chloride of potash, caustic soda, soda ash, soda crystals, sulphate of soda, sulphur, strontia salts, manures, soap, glycerine, pearl hardening, bichromate, carbonate and caustic potash, hyposulphite of soda, silicate of soda, manganate of soda, sal ammoniac, sulphate of ammonia, ultramarine, bicarbonate of soda, and crystal carbonate. The profits are expected to be derived from the avoidance of undue competition which has prevailed between the various manufacturers, the reduction of cost of transit by supplying goods from the district nearest the consumers, and from economies which will result from unity and concentration of management. No official report has as yet been issued as to the amount of shares taken up in response to the private circulation of the prospectuses and application forms, but the general opinion is that in spite of the tightness in the money market, a very large number of shares have been applied for by the friends of the owners, consumers of chemicals, and middlemen who are desirous of keeping up their connection with the trade. It is said that from 700,000*l.* to 800,000*l.* worth has been taken up in the Lancashire district, and from 250,000*l.* to 300,000*l.* in the East district, comprising Glasgow and Newcastle; but these figures are mere matters of conjecture, as nothing will be definitely known until the official report is issued.

**THE MARKET FOR HEAVY CHEMICALS** has been very firm, and prices generally have been fully maintained, *Bleaching-powder* and *Soda Ash* being especially in good demand.

**BICARBONATE OF SODA** continues very firm and scarce, at 7*l.* per ton, in 1-cwt. kegs, f.o.b. Liverpool, with usual allowances for larger packages.

**BLEACHING-POWDER.**—In strong demand for export in hardwood cases, and some makers are now asking prices above the minimum rate fixed by Union. For the home trade, packed in softwood casks, price for this month is now 6*l.* per ton on rails Widnes and St. Helen's. For December delivery price is 6*l.* 5*s.* per ton; and for next year 6*l.* 10*s.* per ton—all less 3½ per cent. discount. Hardwood bleach for prompt is 6*l.* 10*s.* for November, 6*l.* 15*s.* per ton for December, and 7*l.* per ton for all 1891, f.o.b. Liverpool, less 3½ per cent. A good business has been doing in Tyneside at 6*l.* 5*s.* per ton, less 3½ per cent. for hardwood casks. Softwood casks, 6*l.* per ton up to end of year, and 6*l.* 15*s.* per ton over next year. Hardwood casks, 5*s.* per ton extra. For delivery ex ship Thames, price for this year is 6*l.* 10*s.* per ton, and for 1891 7*l.* 5*s.* per ton, in softwood casks.

**CAUSTIC SODA.**—In slightly better demand, although there are a few small lots offering by second hands, who wish to get rid of their purchases before the end of the month in the face of a drop in the price, which takes place next month. 74-per-cent. for prompt is quoted 12*l.* 10*s.* per ton; 70-per-cent., 11*l.* 10*s.* per ton; 60-per-cent., 10*l.* 5*s.* per ton. For December delivery, 60-per-cent. is 10*l.*, and 70-per-cent. 11*l.* 5*s.* per ton. For all 1891, 60-per-cent. is

9*l.* 15*s.*, and 70-per-cent. 11*l.* per ton—all less 3½ per cent. discount, f.o.b. Liverpool. These are the minimum prices for forward deliveries. Tyne market continues very strong: 77-per-cent. white for Nov.-Dec. is 12*l.* 5*s.* per ton net, and 77-per-cent., ground and packed in 3- and 4-cwt. casks, has been advanced to 16*l.* per ton net. 70 per-cent. for this month is quoted 11*l.* 10*s.* per ton, less 33 per cent. discount f.o.b. Tyne.

**CHLORATE OF POTASH.**—In rather better demand. For prompt delivery 5½*d.* to 5½*d.* per lb., less 5 per cent., for December 5½*d.*, and for 1891 6*d.* per lb., at usual ports of shipment.

**CREAM CAUSTIC.**—Very firm, and not much offering. There is a drop in price as compared with last week. For prompt 9*l.* 12*s.* 6*d.* on rails, and 9*l.* 17*s.* 6*d.* f.o.b. Liverpool. December delivery prices are 5*s.* per ton less, and for forward to end of next year quotations are based on a reduction of 10*s.* per ton on present prices—viz., 9*l.* 2*s.* 6*d.* on rails, and 9*l.* 7*s.* 6*d.* per ton f.o.b. Liverpool.

**HYPHOSULPHITE OF SODA** remains unaltered in price, with a good demand. Packed in 1-cwt. kegs price is 6*l.* per ton, and in casks 7-8-cwt. 5*l.* 10*s.* per ton. For delivery in Liverpool and Manchester values are 6*l.* 5*s.* and 6*l.* 15*s.* per ton in casks and kegs; usual discount of 2½ per cent.

**SODA ASH.**—Firm and very scarce for prompt delivery, and good inquiry for forward. Caustic ash 1½*d.* per degree and carbonated 1½*d.* to 1½*d.* per degree, less 3½ per cent., f.o.b. Liverpool. The price for strong 3-4-cwt. barrels, for export, is 1½*d.* per degree, f.o.b. Liverpool. Tyne market steady, at 1½*d.* per degree, less 3½ per cent., f.o.b. Tyne. The minimum price for 1891 is 1½*d.* per degree, less 3½ per cent., f.o.b. Tyne and Liverpool.

**SODA CRYSTALS.**—Quiet at the moment—3*l.* to 3*l.* 2*s.* 6*d.* per ton on rails, and 3*l.* 5*s.* to 3*l.* 7*s.* 6*d.* per ton, net weights, f.o.b. Liverpool, less 3½ per cent.; and 2*l.* 15*s.* 6*d.* per ton, gross weight, net cash, f.o.b. Tyne. The foregoing values are quoted for deliveries up to the end of 1891.

**SULPHATE OF COPPER.**—In slightly better demand, at 18*l.* 10*s.* per ton for prompt, and 19*l.* per ton asked for December. For delivery January to April the price is 19*l.* 10*s.* to 20*l.* per ton, all less 5 per cent., f.o.b. Liverpool.

**SULPHATE OF SODA.**—Little doing, but no relaxation in price, which is 40*s.* per ton in bulk on rails at makers' works, Widnes and St. Helen's, for Nov.-Dec. delivery. For next year, price is 42*s.* 6*d.* per ton. Ground and packed for export, 60*s.* per ton is quoted f.o.b. Liverpool. Tyne prices are 42*s.* 6*d.* per ton in bulk, and 53*s.* per ton in casks, less 3½ per cent. discount, both prompt and forward deliveries.

## THE GERMAN MARKETS.

HAMBURG, November 11.

**ALTHOUGH** last week there has been a little more life in some articles, business in general has been of an exceedingly quiet character, and speculation is almost at a standstill.

**ANTIMONY.**—*Crude Japanese* is cheaper, and may already be had on the spot at 90*m.*; while for delivery bids at 85*m.* are solicited.

**BALSAMS.**—*Copaiba* remains firm, and is scarcely obtainable under 4 80*m.* and 5*m.* In *Peruvian* balsam there has been a very large business at advancing prices; for pure balsam 12*m.* has already been paid. *Tolu* quiet, but firm in price.

**OILS (ESSENTIAL).**—*Star Anise* firmer at 14½*m.* *Peppermint*: H.G.H. in strong speculative demand; up to 14½*m.* has been paid. *Japanese oil* is also dearer—fine genuine qualities at 11*m.* to 11½*m.*; for delivery 10*m.* is quoted.

**QUILLAIA.**—The whole has been concentrated into the hands of one holder, and cannot now be had under 40*m.*

**SPERMACETI.**—Slightly firmer, and again advanced to 3-05*m.*, but the consumption remains very small compared with the large supply, and an improvement is scarcely to be expected.





### Memoranda for Correspondents.

*Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.*

*Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.*

*If you send us newspapers, please mark what you wish us to read.*

*Ask us anything of pharmaceutical interest: we shall do our best to reply.*

*Before writing for formulæ consult the last volume, if you have it.*

*Letters, queries, &c., will be attended to in the order received.*

### The Pharmacy Bill.

SIR,—Member after member of the Pharmaceutical Council has bewailed the lack of enthusiasm in and want of support from the members of the trade. It seems to me very difficult to see how the Council can expect the support of the trade in pushing any new Pharmacy Act. Let the Council exercise the powers they have, and so prove that they have the interests of the trade at heart. Let the Secretary of the Society notify local secretaries to make him acquainted with all the cases that come under their notice of unregistered parties keeping open shop for the sale of poisons, as well as of unregistered assistants in charge, and then let him have the law enforced. That there is a large number of such cases is well known, and no steps having been taken to enforce the law only goes to prove that the Council have no heart to enforce the provisions of that "poor, wretched Poisons Act." The sooner the power to prosecute is taken out of the hands of the Society and given to the Public Prosecutor, the sooner will the qualified proprietor receive that protection to which, under the present Act, he is entitled. The Glasgow case is only one of many that might be had in Scotland, not only in the cities, but in the provinces also. Until the members of the trade have some assurance that there is a likelihood of their rights being respected and enforced, the Society is neither entitled to—nor can it look for—hearty support; in fact, I consider it to be the duty of every member of the trade to oppose further powers being given to the Society until some such assurance is obtained.

I am, &c.,

SCOTUS. (173/40.)

SIR,—The Bill, as far as it goes, is a good one for apprentices and as a curriculum Bill, but it does not go far enough; and, although Mr. Carteighe gave us an excellent address a few days ago, I fail to see why a "company" clause should not be inserted, even if it be somewhat illogical. His argument for logic will not do these days. Some may ask, Why did I not speak out at the meeting? Well, I may say I am somewhat diffident at speech-making—much more so than Mr. Taylor said he was. I admire him for his outspokenness. There is much truth in what he said though Mr. Carteighe did think it deficient in logic. This Bill, I take it, will do little real good for the trade if passed, though I agree with it from an educational point of view. As the first Bill was a Poisons Bill, so this is a Curriculum Bill. The Pharmaceutical Council, as a body, has all along neglected the trade as a means of livelihood of the chemist and druggist, and no wonder so many are outside its ranks. The trade is accused of being apathetic; but has not the Pharmaceutical Council been equally so? Yea, and more so with respect to the interests of our trade! I agree with Mr. Kemp in wanting to put down bogus companies (I see another new one in last week's journal), and would like with others to insist on a clause for such a purpose being inserted. Why should it imperil the Bill? Take out the widows clause if necessary, or limit it to time: I do not think so many would object. There is no doubt in my mind that if a good sound Bill, which studied

our trade interests and the welfare of the public generally, were presented to Parliament with the approval and support of nearly the whole body of chemists, it would be far more likely to pass than one having the support of only about one-third of the trade. Let the Council go for as much as it can, even if it should not get all that is wanted: "nothing venture, nothing win." As you say, Sir, the future of British pharmacy depends on vigorous and united action now. Then let us be up and doing, all of us, and by one great effort get a Bill passed that will be a satisfaction and a credit to every chemist on the register. I would make one to interview the M.P.s for my district, and I venture to think if all others would do the same and not be apathetic, but vigilant and determined, a happy result would follow, and a better future await us.

Yours,

Manchester, November 10.

G. W. PRATT.

SIR,—I have carefully read Mr. Carteighe's speeches and your rejoinders anent the proposed Pharmacy Bill, and come to this conclusion: that, unless the "companies clause" is added by the Society, I shall write to *each* of our county members (five) and beg them to oppose the Bill. Those in the trade who are of the same opinion should write you.

Yours faithfully,

WILTS. (174/32.)

SIR,—In the concluding remarks of your leader in Saturday's issue you say "the future of British pharmacy depends on vigorous and united action now." But how can the real opinions and influence of the members of the trade be collected and brought to bear upon the powers that have our commercial destinies in their hands? The Legislature looks upon the Pharmaceutical Society as representing the trade, and if the Pharmaceutical Society is not the exponent of the requirements of pharmacy, who is to blame? If the Council are elected by and represent only one-fifth of the trade, surely the remaining four-fifths have somewhat to answer for. If pressure is to be brought upon the Council to place itself more in touch with the trade, that pressure must come from within, and not from without. The Council must be made to represent the majority of the trade by every chemist in business making up his mind to join the Society and helping to reform it. If the mountain will not come to us we must go to the mountain. From discussion with many pharmacists in this city, I find much apathy, but very little reason in opposition to the draft Bill before us. We all deplore the omission of any reference to company pharmacy, as we all suffer from it: company pharmacy is very active in this city, and opinion is divided as to the benefit to be derived from approaching a hostile Parliament upon the question until we have set our own house in order; we can then demand our just dues, and that without giving up the widows clause.

Mr. Carteighe may have his pet scheme: there is nothing in it to hurt us. But any movement against the great evil, company pharmacy, must be made by the whole trade, represented by a true Pharmaceutical Society; so pharmacists not already in the Society will do well to consider their present position, and if they could not better further their own interests and that of the trade generally by joining the Society, and thus showing a united front to the danger that assails.

Yours truly,

Handsworth, November 10.

C. F. JARVIS.

[Surely it is not necessary for a chemist and druggist to subscribe to the Pharmaceutical Society before he may express his opinion in reference to a Bill which is as much his concern as theirs. It is not at all the time to throw guineas into the exchequer of the Pharmaceutical Society while the Council of that body persistently refuses to act for the trade. There is no fear of the Legislature assuming the Society to be the exponent of the trade. The trade can easily correct any little error in that direction.—*ED. C. & D.*]

AN Edinburgh "Pharmaceutical Chemist" (175/21) writes us concerning a company which, having floated a business with which the proprietors were not familiar, now find themselves, in two years, with their capital of 25,000*l.* sunk in



shop-fittings and goodwill. To accomplish this they have done much evil to others. "There is much need," adds our correspondent, "for a clause in the proposed Bill, as you so ably and fairly suggest in your Saturday's issue. We cannot be worse than we are, and it is only reasonable to amend the clearly visible flaw in the 1868 Act. There would be a fairly good chance of members of Parliament taking a common-sense view of the spirit of the 1868 Act, and it would only be reasonable that a company should be prevented from doing what it would be illegal for an individual to do. A clause providing this would receive the support of all chemists, and the new Bill certainly would be more complete and have a better chance of passing."

SIR,—The Bill about to come before Parliament offers little hope to the unqualified assistant. Every advertisement is now for a qualified man. Is there no hope for those who have passed the army examination for compounders of medicine, which I consider is equal to the Minor, and more so? We must serve our Queen and country, and after that get washed into the gutter because we do not hold the Society certificate. Where can a man get better experience and practical knowledge than in a military hospital, besides the lectures he goes through, which a Society man never does? Give justice where it is due.

London, November 11. ARMY DISPENSER. (175/39.)

#### Hop Bitter.

SIR,—Since my previous communication upon the above subject appeared in your issue of August 2 I have had various opportunities of experimenting upon infusions of chiretta, calumba, chamomile, and gentian, in the manner described by Mr. Adams, viz., boiling with a  $2\frac{1}{2}$ -per-cent. solution of sulphuric acid, and find that the bitter of all of them, without exception, is more or less affected by such treatment, rendering the sulphuric-acid process utterly useless for the purpose for which it has been put forward. In concluding this controversy it certainly appears to me very strange that Mr. Adams, during fifteen years, had never an occasion to examine a sample of old hops, and also that it was at the eleventh hour that one came into his hands, when his pet process fails him, and, smarting under the overthrow he had sustained by his collaborator's recantations, he again rushed into the arena with his No. 2 process, forgetting that all the time he had been boiling his hop infusions with sulphuric acid (in a more or less concentrated state), which not only destroys hop bitter, but other bitters as well—a circumstance which I have no doubt accounts for the fact that Mr. Adams never failed to precipitate the hop bitter from an infusion of new hops by subacetate of lead.

13 Fish Street Hill, E.C.  
November 3.

Yours truly,  
WILLIAM JOHNSTONE.

#### Raising Prices.

SIR,—Opinions of chemists are invited on this subject.

I consider this practice a great injustice to chemists and druggists, who have been so instrumental in bygone days in making the fortunes of many proprietors, who in return now endeavour by raising prices (for their own interest and nothing else) to deprive those to whom they should show some little gratitude of yet another portion of the small profit obtained by our craft; whilst the stores do not increase their price, as a rule, but on the other hand use patent medicines as a "decoy," especially in country places, and often for this purpose sell them at less than cost price. The mode I adopt, and shall continue to adopt, is this: every article, as the price is advanced, no matter if one of the most popular of the day, I sell out and never put in stock again, nor issue any counter-bills or other advertising matter connected with it, and either push the sale of a similar article made by a proprietor who believes in the motto "live and let live," or I introduce a preparation of my own, and with a little perseverance, and the distribution where necessary of gratuitous trial samples, the result has, during the last two years, exceeded my most sanguine expectations, and it is astonishing how soon the public gain confidence and forget their old prejudices.

Yours faithfully,  
PERSEVERANCE. (174/11.)

P.S.—I may add that some stores are actually giving away Eno's and other patents if so much tea, &c., is purchased.

SIR,—In answer to your correspondents signing themselves "Manufacturers"—*re* above subject—we can say that the advance we made in the wholesale prices of our preparations has not had any injurious effect upon our sales; in fact, the last twelvemonth's output has been the largest we ever had, and that in the face of our discontinuance of all newspaper advertisements.

The reduction we made in the marked prices from 1s.  $1\frac{1}{2}$ d. and 2s. 9d. to 1s. and 2s. 6d. has, as far as our knowledge goes, been appreciated by those who use them.

Yours truly,  
November 12. P. & T. (240/21.)

#### Disintegrating Tabellæ.

SIR,—In the letter published on page 665 of your issue of the 8th inst., Messrs. Burroughs, Wellcome & Co. courteously remark, "We do not for a moment think that Messrs. Allen & Hanburys wish to create any false impression as to their supposed priority in the manufacture of compressed drugs that would disintegrate readily," &c.

Allow us to assure Messrs. Burroughs, Wellcome & Co., and your readers generally, that the creation of a false impression is exactly that which we desire to obviate: our only wish in this matter is that the simple facts of the case should be known.

They are these. During a series of experiments, continued over a considerable period, a fact presented itself which was seen to be admirably suited to facilitate the disintegration of compressed tabellæ.

Practical experience, extending over a couple of months, having fully confirmed the value of the improvement, we offered the new goods for sale by advertisement on September 27.

We were, of course, perfectly familiar with Wyeth's Tablets as advertised and supplied nine or ten years ago by Messrs. Burroughs, Wellcome & Co., and ever since have been equally well acquainted with the tablets sold by that firm, to which of late they have applied the registered name "Tabloids."

We were, therefore, not in a position to be mistaken as to the value of what Messrs. Burroughs, Wellcome & Co. term our "supposed discovery or invention;" and we assert, in the strongest possible manner, that we were not anticipated by Messrs. Burroughs, Wellcome & Co., or by any other maker, in the perfectly original improvement we have been able to introduce.

We prefer to rely on the evidence afforded by the articles themselves rather than upon the statements in advertisements, ancient or modern, of Messrs. Burroughs, Wellcome & Co. or even upon the comments of the press upon the articles so advertised; and we would earnestly request anyone who feels sufficient interest in the matter to suspend a tablet or tabloid of, say, sulphuric acid, sulphur, or compound sulphur in water, by whomsoever made prior to the beginning of last month, side by side with one of our new tabellæ of the same substance.

We are, yours faithfully,  
November 12. ALLEN & HANBURY.

#### Stamping Dispensing-scales.

SIR,—In last week's CHEMIST AND DRUGGIST there was a report of a case of a chemist being fined for having his scales  $\frac{1}{2}$  grain out of the balance. If that was correct it seems very hard. I live within a cable's length of the sea (pardon the expression, but we are nothing if not nautical at the seaside), and use hand dispensing-scales strung with silk, which I should think might become affected to that extent in very damp weather. I should also like to know whether it will be necessary to have such scales stamped under the new Act, because I do not see much use in it where the pans are strung with silk.

Yours faithfully,  
Teignmouth, November 10. JNO. E. RYDER.



## Doctors' Unqualified Assistants.

SIR,—I can only say to "Devon," in reply to "Devon's" objection to the late interpretation of the Pharmacy Act, 1868, as affecting the above assistants, that I took as an assistant one who had been an apprentice to a doctor, and he was allowed to pass the Minor. Let others in doctors' service do the same. But the interference is enforced with those doctors who keep open shop, and it would be strange indeed if they and their assistants were exempt.

Yours truly,  
BUTTER. (175/62.)

## DISPENSING NOTES.

*The opinions of practical readers are invited on subjects discussed under this heading.*

## A Throat Application.

SIR,—I made up the following prescription as written, but had it returned, as the patient who had had it made up previously showed me some that was quite liquid; mine was the consistency of vaseline. Which was right?

Camphor	..	..	..	..	gr. xv.
Menthol	..	..	..	..	3ij.
Iodi.	..	..	..	..	gr. i+j.
Ol. vaselini	..	..	..	..	3ij.
Lanolini	..	..	..	..	3ij.
Misce.					

Yours truly,  
G. W. WEST.

## A Pill Query.

SIR,—What is the best way of dispensing the under-mentioned prescription?—

Sodæ sulphid.	..	..	..	..	gr. xxiv.
Acid. salicylic.	..	..	..	..	gr. xxiv.
Pulv. capsici	..	..	..	..	gr. xii.
Pulv. ipecac.	..	..	..	..	gr. vi.
Ext. aloes aq.	..	..	..	..	gr. xii.
Ext. gentianæ	..	..	..	..	q.s.
M. Ft. pil. xxiv.					

Yours truly,  
PILULÆ. (235/32.)

## Polypharmic.

SIR,—The following copy of a prescription is interesting as regards what ought to be charged for it, and also as a good example of the way some doctors prescribe:—

Hydrarg. perchl.	..	..	..	..	gr. $\frac{1}{3}$
Podophyllin	..	..	..	..	gr. $\frac{1}{3}$
Acid. arsen.	..	..	..	..	gr. $\frac{1}{3}$
Ext. aloes aq.	..	..	..	..	gr. ss.
Ext. nuc. vom.	..	..	..	..	gr. ss.
Exalgin	..	..	..	..	gr. ss.
Ergotin	..	..	..	..	gr. i+j.
Ext. belladon.	..	..	..	..	gr. $\frac{1}{4}$
Quin. sulp.	..	..	..	..	gr. i.
Ft. pil. Mitte tales xii.					
1 ter die sumend. post cib.					

Yours faithfully,  
A. A. D. (175/8.)

## A Precipitate.

SIR,—What is the cause of the precipitate in the following mixture?—

Quinina sulph.	..	..	..	..	gr. xij.
Liq. ferri perchl.	..	..	..	..	5iss.
Acid. phosph. dil.	..	..	..	..	5iss.
Aq. chlorof. ad	..	..	..	..	3vj.

It is quite clear when mixed, but in the course of twenty-four hours a thick, milky white precipitate forms.

The cure is to add mxx. of mineral acid (I used dilute nitric), when, after about twenty-four hours, it gradually becomes clear.

I made at the same time a concentrated solution from exactly the same formula, but six times as strong, and this has not deposited at all.  
LEO. (174/27.)

[Ferric phosphate is precipitated in this case, and the addition of mineral acid completes the quantity required to keep the compound in solution. It is not surprising that a more concentrated preparation kept clear. The acid is the solvent, ferric phosphate being comparatively insoluble in water. Hence, the more water is added the more do we counteract the solvent power of the acid.]

## A Question in Ethics.

SIR,—Suppose I got a prescription to dispense containing potas. iodid. and tinct. ferri muriat., should I be right in dispensing it?

Yours respectfully,  
R. (175/16.)

[The ferric chloride and potassium iodide will react, liberating iodine. The question is, Would the mixture be safe? That will depend upon the quantities of each chemical present; but, apart from that, we do not think that one prescriber in a hundred who writes such a prescription is aware of the decomposition which takes place, and a dispenser would be wrong in compounding the mixture without first calling the prescriber's attention to the matter, and suggesting an alteration of the prescription. In most cases the mixture is decidedly unsafe, the toxic effects of iodine being quickly manifested.]

## LEGAL QUERIES.

173/24. *E. Delral.*—We do not understand what you mean by "the dentaria chemistry." You may not practise as a dentist nor as a pharmacist in this country with a French qualification. For full information respecting the examinations and curricula refer to the Educational number of this journal (September 20, 1890), which can be obtained from the publisher for 4d.

173/1. *Justice.*—You should read up the arguments and judgments in the Pharmaceutical Society v. Wheeldon, published in the early part of this year, before writing about the Glasgow case. You are under a misapprehension.

175/11. *Enquirer.*—We think both labels are.

175/42. *H. A. W.*—Section 45 of the Weights and Measures Act, 1878, provides that "a weight or measure duly stamped by an inspector under this Act shall be a legal weight or measure throughout the United Kingdom, unless found to be false or unjust, and shall not be liable to be re-stamped because used in any place other than that in which it was originally stamped." This applies to weights and measures only, and not, apparently, to weighing instruments. The regulations issued by the Board of Trade, and authorised by the Act of 1889, say that "in any district where there is a properly certified inspector, and where the stamping office is open to the public every week-day, the local authority may require that any weighing instrument brought into use for trade within their district shall be tested and stamped by their inspector, although such weighing instrument may have been stamped in the district of any other local authority."

175/31. *Beacon.*—We do not reply to anonymous inquiries.

176/14. *Scales.*—The Middlesex County Council, we suppose, would be your local authority. Write to them, or to the Weights and Measures Department of the Board of Trade.

176/11. *Subscriber.*—Our answer was as exact as we can give it. We do not think the lozenges would be liable to medicine-stamp duty. But why not send a box labelled to Somerset House and get an authoritative reply?



## MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

171/72. *T. M.*—Glycerine Jelly.—November 16, 1889, page 707.

173/59. *Berthall.*—Ceratum Galeni (cold cream).—March 23, 1889, page 398.

169/16. *Solo.*—To Determine how much Alcohol an herb beer contains, take 20 ozs. of it, and distil 10 oz. Make up the distillate to 20 oz. with distilled water, and take the specific gravity of the mixture. As this mixture will contain all the alcohol in a pint of the beer, reference to an alcohol-table will show the percentages of alcohol and proof spirit. A maximum of 3 per cent. of the latter is allowed.

160/56. *Seotus.*—Tilseed is another name for gingelly, sesame, or benne seed. The plant which furnishes it is grown largely in the tropics, and the seed as well as the oil pressed from it are imported here in enormous quantities from India. Africa is also an important producer. Gingelly oil is used largely for soap-making; also as an adulterant of olive oil.

211/35. *Caedyl.* Japan Wax.—The source of the Japan wax of commerce is *Rhus succedanea*, Linn. The tree is cultivated in the southern and south-western portions of Japan, chiefly in the island of Kiu-Siu, of which the provinces of Higo and Hizen afford the best qualities. The wax is obtained from the dried berries of the tree by powdering and steaming the mass over a cauldron, the wax being subsequently moulded in tablets about 10 inches square and 2 inches thick. The finest qualities are used in Japan itself.

146/16 (Cork) and 134/48, *W. J. S.* Keeping Salt Dry.—We have endeavoured to obtain information in Holland with regard to the conditions under which the Dutch Indian Government prize of 10,000f. for a method of keeping salt in small paper parcels perfectly dry. All we can ascertain, however, is that such a prize has actually been offered, and that the conditions have been published in the official Gazette (*Staatscourant*) of the Netherlands. Perhaps you might obtain the desired information by applying to the "Ministerie van Koloniën, The Hague, Holland."

170/50. *T. T. Stubbs.*—To give oil the Odour of Russia Leather add to it a sufficiency of oleum rusci—the true Russian variety must be used. You can get it from Gedfrey & Cooke, who are importers of it.

169/56. *Una.*—The following is the formula for Unna's Zinc Jelly, as given in the last reprint of "The Art of Dispensing":—

	Oz.
Oxide of zinc .. .. .	1½
Gelatine .. .. .	1
Glycerine .. .. .	3
Water.. .. .	4

Soak the gelatine in the water overnight, and afterwards dissolve by the heat of a water-bath. Triturate the oxide of zinc with the glycerine, and mix intimately with the warm gelatine solution.

The ichthyol gelatine is made of 5 and 10 per cent. strength with a similar basis, and sometimes with a somewhat thinner basis.

170/53. *L. & C.* (Calcutta). You will find a number of the formulae which you require in the *DIARY*, which will be delivered to you a week or two after you receive this number. A good ringworm ointment is the Unguentum Chrysarobini of the British Pharmacopœia. **Marking Ink.**—We repeat an approved form, the number containing it being out of print:—

Nitrato of silver .. .. .	3¼ oz.
Sodium bicarbonate .. .. .	4½ "
Solution of ammonia (s.g. .880) .. .. .	3½ "
Tartaric acid .. .. .	10½ drachms
Archil .. .. .	1 oz.
Soluble sap green .. .. .	1 "
Powdered acacia .. .. .	2½ "
Sugar .. .. .	1½ "
Water .. .. .	q.s.

Dissolve the silver and soda salts, each separately, in 2 pints of boiling water, and mix solutions. Allow the precipitate to settle, decant the fluid, and collect the precipitate on a paper filter, wash it with a pint of water, and, when drained, transfer it to a mortar; add the acid, and mix. When effervescence has ceased, add the ammonia solution, and transfer the whole to a bottle containing the sugar. Now dissolve the sap green in 4 oz. of water, and the archil by the aid of heat; add the acacia to the mixture, stir until dissolved, and strain. Add the ammoniacal solution to this, and make up to 20 oz. with water.

170/42. *J. B. S.*—We will try to get further particulars.

170/6. *A. D.*—We cannot advise you. You must find out for yourself what you are best fit for, and push your way to the front.

169/73. *Severn.*—The choice of perfumes is quite a matter of fancy. We like your lavender water, and do not care for your compound essence. We cannot advise you in regard to pushing these.

227/15. *Hotspur.*—(1) The hair-lotion is to be used for sponging the roots of the hair. A teacupful of it may also be added to the hot water used for washing the head. (2) The melting-point of Commercial Stearin is about 60° C.. It would do as well as paraffin for frozen perfumes. (3) About 1s., we suppose.

226/27. *Rhei.*—(1) Caustic Points are inserted by fusing the end which is stuck in the holder. (2) Salts of wormwood = potassii carbonas. (3) Equal parts of almond oil and syrup of violets are generally used.

171/29. *Gentian.*—There is a paper on the manufacture of concentrated infusions in our issue of February 22. p. 250.

171/32. *Cupri Sulph.*—Sulphate of copper and sulphate of iron are totally different in their action upon certain micro-organisms. The latter has scarcely any action at all, the former is powerfully active, and for that reason it is taken advantage of to prevent smut in wheat. As to the precise reasons for this we presume that no one could tell.

168/15. *T. G. H.*—See our issue of February 12, 1889, p. 214.

**List of Books for the Minor.**—Several correspondents who ask for this are referred to the Educational number, September 22.

172/54. *Vaseline.*—There are many plans To Make Labels Adhere to Tin. One of the best is to brush the part first with varnish, and when that dries, paste on the label in the ordinary way.



R. K. (171/9) and G. H. L. (167/58).—We shall publish a useful "Guide to Veterinary Counter Practice," which will meet your requirements, early next year.

172/71. J. J.—You can get provisional protection of your invention by payment of a fee of 20s. Then you can make inquiries as to the probable market value of the invention.

170/42. J. B. S.—The Cocaine-poisoning Cases referred to in our Paris correspondence (November 1) have been mentioned in many of the French medical journals. A notice of the Paris case appeared in the "Journ. de Med. de Paris," October 26:—"In neither instance were the precise doses mentioned. In the Lille fatal case the court held 'that the patient, a young girl, died in a syncope while under the influence of cocaine, but that the death was not proved to have been caused by the slight dose administered; it was, on the contrary, more likely due to to either the shock or a nervous temperament.' As to the Paris case, Dr. Ad. Olivier, on relating at length the accident and its treatment, on October 9, before the Society of Practical Medicine, said of the dose: 'The injection made into the gum with a Pravaz syringe must have been a copious one, as some of the liquid ran into the mouth, and the patient had to rise quickly and spit it out. Hence it is probable a whole syringeful was administered.' The patient came near to dying, and was only saved after three days' energetic treatment. Elsewhere he added, 'It was quite impossible to ascertain what dose had been injected, the dentist having declined to make any statement to the patient's husband;' and, 'cocaine, as an anæsthetic, is more dangerous than chloroform.'"

175/41. T. B.—The removal of the cork in taking out a portion of the mixture and the subsequent large air-space with the introduction of germs is sufficient to account for the mixture becoming mouldy. You should add 2 or 3 drachms of spirit of chloroform. It would improve the taste and act as a preservative.

174/7. Assistant.—It is impossible, and obviously undesirable, for us to advise in medical cases.

175/64. C. E. L.—The "Liq. Aloes" mentioned in the Gripe Mixture formula (1890 Diary) is stated to be 1 in 4. You may make the solution in the following way:—

Barbadoes aloes .. .. .	1 oz.
Solution of potash .. .. .	$\frac{1}{2}$ "
Water to .. .. .	4 "

Powder the aloes; mix the potash solution with 2 oz. of water, and rub up with the aloes until dissolved; strain, and make up to 4 oz. with water.

175/35. Avis.—The veterinary white embrocation, of which a formula is given in the 1890 Diary, is suitable for human use. Lin. terebinth. B.P. is also an excellent liniment; so is Stoke's (see page 565).

175/65. A. J. S.—Wine flavours are mixtures of ethers. Thus cœnantic ether with a little nitrous ether closely resembles sherry. You can get all these flavours ready prepared from makers of soluble essences for aerated waters.

175/51. E. M.—For polishing Black Clocks use any good furniture polish, or the following:—

Linseed oil .. .. .	1
Spirit of turpentine .. .. .	2
Solution of ammonia .. .. .	$\frac{1}{2}$
Methylated spirit .. .. .	3

Mix.

174/1. A. J. T.—"Lectures on Physiology, Hygiene, &c." by Dr. C. E. Fitzgerald (G. Bell & Sons, about 2s. 6d.)

230/4. W. W.—The following formulæ for Children's Cough Mixtures are reliable:—

Mindererus spirit .. .. .	4 drachms
Ipecacuanha wine .. .. .	$1\frac{1}{2}$ "
Spirit of nitrous ether .. .. .	1 "
Water, to .. .. .	2 ozs.

Mix.

Dose: A teaspoonful (more or less) every three hours.

Bromide of ammonium .. .. .	$\frac{1}{2}$ drachm
Tincture of henbane .. .. .	1 "
Ipecacuanha wine .. .. .	2 "
Spirit of chloroform .. .. .	2 "
Syrup of Virginian prune .. .. .	$1\frac{1}{2}$ oz.
Water, to .. .. .	4 "

Mix.

Dose (for children over one year): A small teaspoonful three or four times a day.

### Information Supplied.

To Remove Tablets from Windows.—I got a wrinkle the other day which may be of service to some brother chips—viz., "How best to remove transparent or gelatine tablets from windows." I had tried various recipes as spt. vin., meth. spt., liq. potassæ, &c. My wife thought liq. am. fort. might do, and, after telling her to mind her own business, I thought I would try it. Well, then, this proved a complete success. Just brush the surface over with this, leave it a few minutes, and then the tablets can easily be removed with a knife, peeling off beautifully, and seldom requiring a second wash with the liquid.—A CONSTANT READER. (232/34.)

Sir Charles Hannick's "Liver Pills":—

Podophylli resinæ .. .. .	ss.
Pil. col. and pil. rhei .. .. .	3ss.
C. pul-atil. et G. assafetid. .. .. .	3ss.
Saponis .. .. .	q.s.

M. Ft. pil.

One for a dose.

111 Fontenoy Street, Liverpool.

J. THOMPSON.

175/13. Flake White.—I always sell plumbi carb. for flake white, and have always done so in the various places I have lived.—JNO. E. RYDER (Teignmouth).

For thirty-five years I have sold plumbi carbonas as "flake white," which is given as a synonym by Pereira, vol. i. fol. 136, third edition, 1848.—J. BURT (Worthing).

[A thoughtless error on our part in saying zinc oxide. We have received a few more corrections similar to those printed.—ED. C. J. D.]

### Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

171/60. Formula for the Auburn Hair Dye, which is popular just now.

172/14. New York laundries are said to turn out linen with a particularly good glaze. What is used for this?

174/60. Oil of eucalyptus (fragrant) sp. gr. .868 to .875 (spoken of by G. A. Grierson, F.L.S., in THE CHEMIST AND DRUGGIST of November 8, 1890)—where obtainable?

AMERICAN PEPPERMINT.—It is said that peppermint was discovered in Wayne County, New York, by a pedlar fifty years ago, and for several years he was the only one who knew that there was money in the plant, and he had the distilling of the oil all to himself. The still-waste of peppermint distilleries is now used for feeding cattle.



20 HIGHEST AWARDS.

# Pears' Soap

Soap Makers  
by Appointment to



H.R.H.  
The Prince of Wales.

RETAIL PRICES.

6d.

SIZE, unscented

-

-

-

1s.

,, all shapes, Washing or Shaving

1s. 6d.

,,

Ditto

ditto

2s. 6d.

,,

(The Washing Tablets are  
perfumed with Otto of Roses)

TRANSPARENT  
GLYCERINE

2s.

per Box of 3 Tablets

16s.

Per dozen  
Boxes.

Per  
Dozen.

4s.

8s.

12s.

20s.

WHOLESALE PRICES.

## DISCOUNT of 20 per Cent.

On all ORDERS of NOT LESS than £5.

(GROSS TRADE-PRICE VALUE.)

## If accompanied by Remittance,

[Lesser Quantities 15 per Cent. Discount only.]

### IMPORTANT STATEMENT.

No Dealer in the Kingdom, "Wholesale or Retail," for any quantity whatever obtains more than the above 20 PER CENT. Discount.

(Signed), *A & F Pears*

71-75, NEW OXFORD STREET, LONDON, W.C.





# BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

## ANALYSIS.

Bicarbonate of Soda	...	...	...	...	97.20
Mono Carbonate of Soda	...	...	...	...	1.90
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	.035
Moisture	...	...	...	...	.82
Insoluble	...	...	...	...	nil

# PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,  
Bleachers, Dyers; Glass, Paper, and Soap Makers.

# SODA CRYSTALS

OF THE FINEST QUALITY.

# BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process  
(Solvay's & Mond's Patents),*

NORTHWICH, CHESHIRE.



# WYLEYS & CO.

## MANUFACTURING CHEMISTS

AND

## DRUG GRINDERS.

WAREHOUSES, LABORATORIES, AND DRUG MILLS,  
**COVENTRY.**

### GELATINE COATED OVAL PILLS.

*For Stock Sorts, Testimonials, &c.,  
see our "Prices Current."*

*For Private Formulæ write for  
Estimates.*

### COMPRESSED PELLETS.

We manufacture all varieties, and issue the same in bulk, or put up in metallic boxes or screw-capped bottles, with descriptive labels.

**EXTRACT of Malt.**

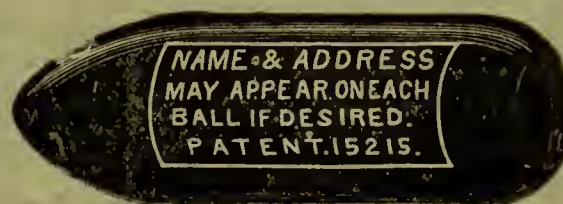
**EXTRACT of Malt and Cod Liver Oil.**

**EXTRACT of Malt, Cod Liver Oil,  
and Hypophosphites.**

In bulk, or in amber bottles in cardboard cases for retail.

### THE DURAPLASTIC COATED HORSE BALL.

(PATENTED.)



"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—*The Chemist and Druggist*.

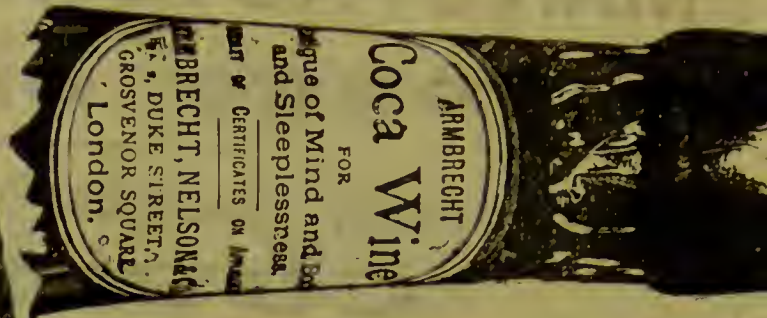
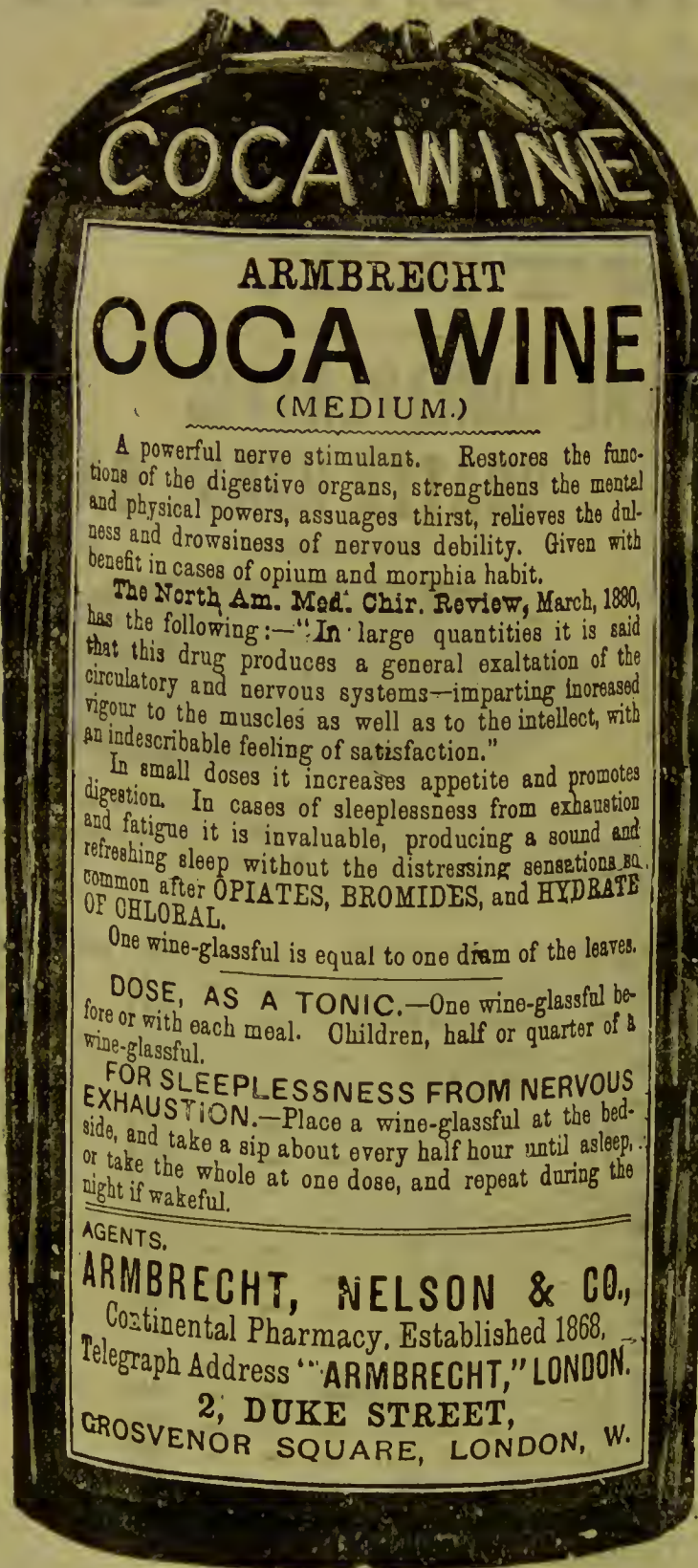
No. 4.—Alterative Balls	...	...	24/	per gross.
" 5.—Astringent Balls	...	...	24/	"
" 12.—Condition Balls	...	...	24/	"
" 6.—Cordial Balls	...	...	24/	"
" 7.—Cough Balls	...	...	24/	"
" 16.—Cough Balls	...	...	27/	"
" 17.—Cough Balls	...	...	27/	"
" 8.—Diuretic Balls	...	...	24/	"
" 9.—Fever Balls...	...	...	24/	"
" 1.—Physic Balls	...	...	24/	"
" 2.—Physic Balls	...	...	30/	"
" 3.—Physic Balls	...	...	36/	"
" 18.—Physic Balls	...	...	42/	"
" 19.—Physic Balls	...	...	48/	"
" 15.—Stimulating Balls	...	...	24/	"
" 10.—Tonic Balls...	...	...	24/	"
" 11.—Tonic Balls...	...	...	20/	"
" 13.—Worm Balls	...	...	30/	"
" 14.—Worm Balls	...	...	60/	"

#### PRIVATE FORMULÆ.

WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes.



# ARMBRECHT COCA WINE.



"Several preparations of Coca Wine have been placed before the public, but we unhesitatingly accord to the above the first place. Their Coca Wine is more suited to the English palate than some of the continental preparations, which are too sweet to be palatable, and which destroy their otherwise tonic and invigorating qualities by deranging the digestive system or creating nausea. The value of Coca Wine in conditions of debility is too well recognised to require comment, and we need do no more than say that after a very careful trial of Messrs. ARM-BRECHT, NELSON & Co.'s Wine we can speak most highly of it as a sound and invigorating tonic, and can recommend it most unhesitatingly."—*Journal of Laryngology and Rhinology.*

## COCA WINE EXTRACT.

A SUBSTITUTE FOR COCA WINE,

Or for making Coca Wine by adding five drops (or more) to Wine.

## COCA LOZENGES.

[This Illustration represents the  
EXACT SIZE  
of the 4s. 6d. Bottle.]

Very liberal discount and nice Show  
Cards to the Trade.

Sold by all Wholesale Druggists throughout Great  
Britain, at 36/- per dozen, or in dozen lots,  
carriage paid direct, with the usual cash discount.

## ARMBRECHT, NELSON & CO.

2, 3 & 4 DUKE STREET, GROSVENOR SQUARE, LONDON.

See pages 37, 38, 39, 40, 41, 42, 43, 44 in 1891 Diary, and also see opposite page.

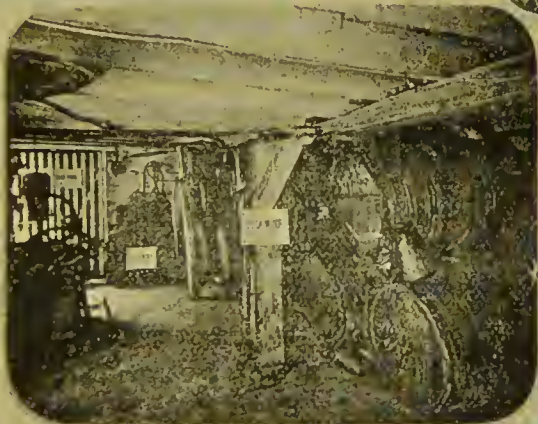


THE OLD ORIGINAL HOME OF COCA WINE (ARMBRECHT).

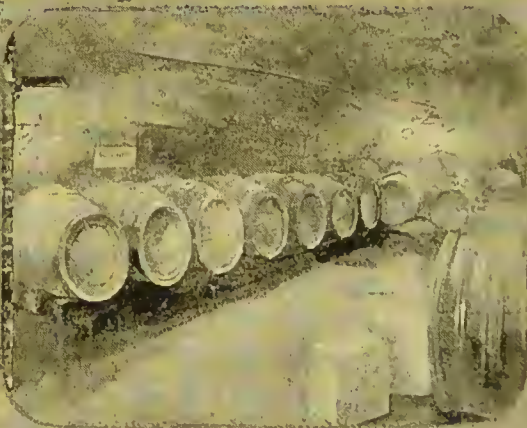
# COCA (ARMBRECHT) WINE



For Fatigue of Mind and Body.



CELLAR N° 6.



CELLAR N° 7.



STORE ROOM



PHARMACY



STORE ROOM.

## ARMBRECHT, NELSON & C<sup>o</sup>

2, 3 & 4, DUKE STREET, GROSVENOR SQUARE.  
LONDON.

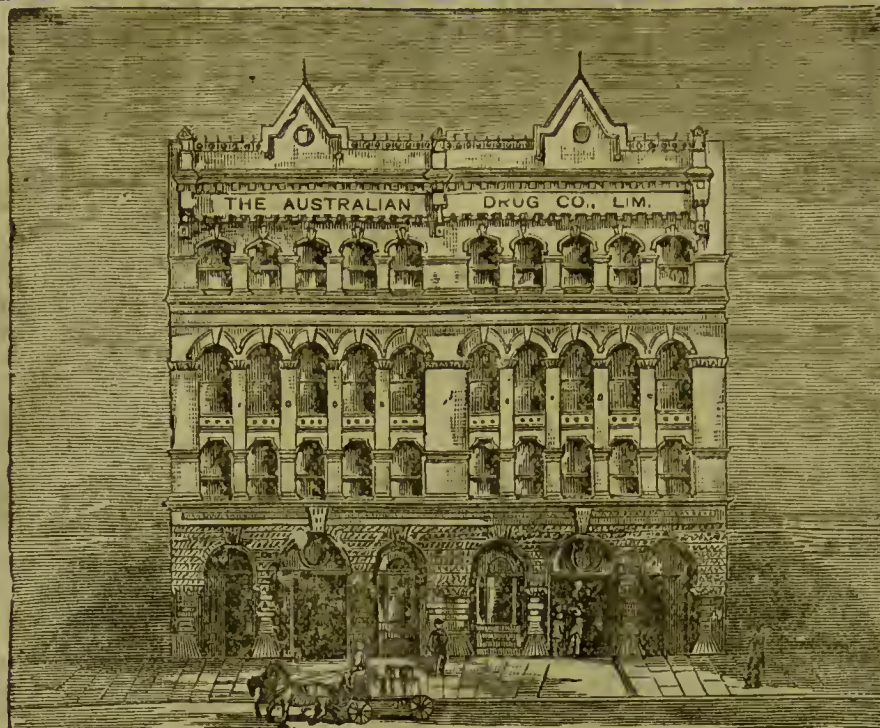


NEW SOUTH WALES

# THE AUSTRALIAN DRUG CO., LIM.,

## LATE E. PROSSER & CO.,

IMPORTERS OF PATENT MEDICINES, DRUGGISTS'  
SUNDRIES, DYE GOODS,  
SURGICAL INSTRUMENTS, PERFUMERY,  
FANCY SOAPS, SPONGES.



IMPORTERS OF BRUSHWARE, CORDIAL MAKERS,  
MACHINERY, CORKS, BOTTLES, LABELS,  
PHOTOGRAPHIC CHEMICALS AND MATERIALS.

**Wholesale Druggists, 19 & 21 O'Connell Street, SYDNEY.**

*Agencies for Patent Medicines and other Goods solicited. Travellers cover New South Wales and Queensland.*

London Agents: LAUGHLAND, MACKAY & BAKER, 50 Lime Street, E.C.

NEW SOUTH WALES.

# W. H. SOUL & Co.

Nos. 158, 160, 162, &amp; 268

PITT STREET,  
SYDNEY, N.S.W.

Will be pleased to  
fill any lines from their  
large Stock, which the  
Trade may be unable  
to obtain from their  
usual Jobbers.

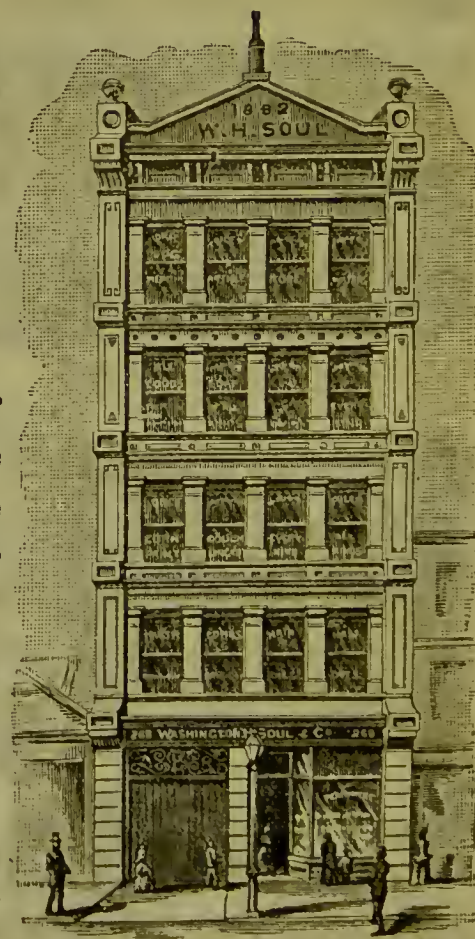
**TERMS CASH.**

W. H. S. & Co. can arrange  
with pushing Houses to receive  
Goods on Commission for  
prompt Sale in this Colony.



7 DOORS FROM KING STREET.

38



4 DOORS FROM PARK STREET.





ESTABLISHED 1870.

# PROSSER, TAYLOR & CO.

(LATE BERKLEY, TAYLOR & CO.),

**WHOLESALE DRUGGISTS AND IMPORTERS,  
AND  
MANUFACTURING CHEMISTS  
BRISBANE, QUEENSLAND.**

*CONTRACTORS TO THE QUEENSLAND GOVERNMENT.*

Importers of Drugs, Chemicals, and Druggists' Sundries, Patent Medicines and Perfumery; Surgical Instruments, Photographic Sundries, Confectioners' and Dyers' Goods, Dental Sundries, Soda Water Machinery, Bottling Racks, Egg-shape and Lamont's Soda Water Bottles, Corks, Essences, Labels, and all Cordial Makers' Requirements.

*All parts of Queensland visited at regular intervals by experienced Travellers.*

*Agencies solicited from Firms who are prepared to actively introduce their Manufactures into the Colony.*

LONDON AGENTS—

MESSRS. LAUGHLAND, MACKAY & BAKER, 50 LIME STREET, E.C.



VICTORIA.

# ROCKE, TOMPSITT & CO., WHOLESALE DRUGGISTS, MELBOURNE,

AND  
119 & 120 LONDON WALL, E.C.

*Samples and Quotations solicited.*

*Agencies undertaken on the most advantageous terms.*

Wholesale Depot for Sander & Son's Pure Volatile Eucalyptus Oil (Eucalyptol), and Importers of Oil of Eucalyptus.

Wholesale Agents—Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C.

## JULIUS LEVY,

Wholesale Druggist & Sundryman, 316 Flinders St., Melbourne, & Charlotte Place, Sydney.

AGENT FOR

HEINRICH HAENSEL — Olea aetherea sine terpeno.

E. MERCK — Alea'oids and Glucosides.

GUSTAV LOHSE — Lily of the Valley Perfumery and Superior Toilet Soaps.

ROBERT FRERES — Triple Extraits and Olive Oil.

STEVENSON & HOWELL — Special Belfast Flavour, Gum Foam, &c. &c.

W. TOOGOOD — W.-Brand of Dispensing Bottles and Chemists' Sundries.

*Correspondence invited and should be addressed to Charlotte Place, Sydney. Special facilities for introducing new lines.*

## MENTHOL

Our Extra Steam Refined quality is in firm, hard, dry, and snowy-white crystals, entirely free from oily contamination, and therefore of the highest melting point. As the original and largest manufacturers in the world of the true Japan Menthol, we guarantee our brand to be absolutely pure. Beware of substitutes. For full particulars, therapeutic uses, etc., see special circulars, to be had on application.

Our Extra Steam Refined Oil is treble distilled and twice rectified by steam, by an entirely new process and in apparatus of our own invention, by which all these polymeric products

## PEPPERMINT

of a tarry and resinous nature which are objected to by some consumers are extracted. It is of water-white colour, retaining its full aroma, pungency, and strength, and guaranteed absolutely pure and soluble in spirits of wine.

Yokohama,  
Japan.

**COCKING & CO.** Established  
1868.

COMMISSION MERCHANTS, WHOLESALE DRUGGISTS,  
AND MANUFACTURING CHEMISTS.

OTHER SPECIALITIES :

Cod Liver, Fish and Orange Oils, Vegetable Wax and Isinglass.

*Monthly Market Report and detail Circulars on application.*

LONDON AGENTS—SPIES BROS. & CO., 106 Fenchurch Street.

Telegram Address—"COCKING YOKOHAMA"

## CAMPBOR

This is the genuine essential oil as produced in the manufacture of the Solid Camphor of Commerce. Our brand is guaranteed to be the natural oil, and not the fictitious mixture of refuse Camphor and Turpentine generally sold. Having made a special study of its manufacture, we have succeeded in producing a colourless oil and entirely free from any smell. It is a remedy in Rheumatism, a good solvent of resins, and the most perfect article for the use of the essential-oil distiller.

## FELTON, GRIMWADE & CO.,

*Wholesale Druggists and Manufacturing Chemists,*  
**MELBOURNE, VICTORIA.**

LONDON AGENTS:—

Messrs. GRIMWADE, RIDLEY & CO. Mildmay Chambers, 82 Bishopsgate Street

Wholesale Agents for Bosisto's Genuine Oil of Eucalyptus.



NEW ZEALAND.

**KEMPTHORNE, PROSSER & CO.,**  
**NEW ZEALAND DRUG COMPANY, LIMITED,**  
 Wholesale Druggists,  
 MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS,  
 Head Office and Factory, DUNEDIN.

## BRANCH HOUSES:

High Street, CHRISTCHURCH,  
 Hunter Street, WELLINGTON,  
 Shortland Street, AUCKLAND,

*Patent and Proprietary Medicines Agency.*



NEW ZEALAND.

London Agents—

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

INDIA.

**PEAKE, ALLEN & CO.**

CHEMISTS, DRUGGISTS,  
 AND

GENERAL MERCHANTS,  
 LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the  
 introduction of NEW SPECIALITIES  
 Patent Medicines, Druggists' Sundries,  
 Perfumery, &c.

**PURE TARTAR EMETIC.**

**PURE OXIDE OF ANTIMONY.**

Showing 98 per cent. of anhydrous  $Sb_2O_3$ .

This product is obtained BY A NEW PROCESS, and  
 is offered at VERY ADVANTAGEOUS PRICES.

**POULENC FRÈRES,**

92 Rue Vieille du Temple, PARIS.

*Grand Prize, Universal Exhibition, Paris, 1889.*

UNITED STATES.

**B. KEITH & CO.,**

MANUFACTURERS OF

**PURE CONCENTRATED  
 MEDICINES,  
 CONCENTRATED TINCTURES, ETC.**

We make a full line of RESINOIDS, such  
 as PODOPHYLLIN, LEPTANDRIN, EUONY-  
 MIN, IRISIN, HYDRASTIN, &c., ALL PURE.

So-called Concentrations are in the market, called by the same name as  
 manufactures, that are made by triturating extracts etc., with sugar  
 of milk, powdered root, etc

**WHAT ARE CONCENTRATED TINCTURES ?**

They are not made from the crude material, but by dissolving the  
 active principles in Alcohol in definite proportions, and  
 invariably represent a uniform amount of therapeutic power.

Send for printed matter on CON. TINCT. AVENA SATIVA in the  
 Morphia or Opium Habit, and certificates from different members of the  
 Medical Profession, citing cases under their charge, treated by it; also  
 REVISED AND ENLARGED MANUAL; also Price Lists, to

**B. KEITH & CO.,**

75 WILLIAM STREET NEW YORK, U.S.A.



# THE TRADE ARE RESPECTFULLY REQUESTED TO HOLD STOCK OF BAYLEY'S WOOD OILS,

Which is now being extensively advertised. It may be obtained from the following Wholesale Houses:—

**LONDON**—W. Edwards & Sons, Barclay & Sons, Sutton & Co., J. Sanger & Sons, Butler & Crispe, F. Newbery & Sons, May, Roberts & Co., R. Hovenden & Sons, Lynch & Co., Thompson, Walters, Hole & Co.

**EDINBURGH**—Ralmes, Clark & Co., Duncan, Flockhart & Co.

**GLASGOW**—Glasgow Apothecaries Co., W. & R. Hattrick & Co., and Jas. Taylor, Trongate.

**DUNDEE**—Jas. N. Davidson & Gray, Nethergate.

**ABERDEEN**—Wm. Paterson & Sons.

**COVENTRY**—Wyleys & Co.; Leamington—Judd & Co.; Leicester—Stephen Wand.

**NORWICH**—Smith & Co.; Exeter—Evans, Gadd & Co.; Liverpool—Evans, Sons & Co., and John Thompson.

**BIRMINGHAM**—Southall Bros. & Barclay, Philip Harris & Co., Crooke & Taylor.

**THIRSK**—Wm. Foggitt; Bristol—H. Hodder & Co., Broad Street.

**MANCHESTER**—Jas. Woolley, Sons & Co.; Newcastle-on-Tyne—John Ismay & Son.

# SALICYLIC ACID

Precipitated in Powder	...	...	Melting Point	156.6 C.
Crystals	...	...	"	157° C.
Physiologically Pure	...	...	"	157° C.

MANUFACTURED BY

**DR. F. VON HEYDEN'S NACHFOLGER, DRESDEN.**

For Samples and Prices apply to

**BURGOYNE, BURBIDGES & CO.**  
12 and 16 COLEMAN STREET, LONDON, E.C.

**B. G. LENNON & CO.,** PORT ELIZABETH & EAST LONDON,  
**LENNON & TEBB,** CAPE TOWN,  
**Wholesale Druggists & Druggists' Sundriesmen**

**LONDON OFFICE: B. G. LENNON & CO., 14 BUNHILL ROW, E.C.**  
**AGENCIES UNDERTAKEN**

**FUERST BROS., 17 Philpot Lane, LONDON, E.C.**

Supply the Wholesale Trade with Chemicals, Drugs, and Oils direct from Manufacturers personally known to themselves, they can, consequently, vouch for the purity of the articles they sell, viz.:

Castor Oil	Phosphoric Acid	Tartar Emetic	Insect Powder
Almond Oil	Salicylic Acid	Castile Soap	Essence of Lemon
Olive Oil	Citric Acid	Pepsin, P.B.	Neroli
Cod Liver Oil	Camphor	Albumen	Floral Waters
Acetic Acid	Glycerine	Cantharides	Perfumes
Tartaric Acid	Glucose	Herbs and Extracts	Otto of Rose
&c.	&c.	&c.	&c. [2]

Or any other kind or description of **OILS, CHEMICALS, DRYSALTERIES, DRUGS, ESSENTIAL OILS.**

**N.B.—ALL CURRENT ARTICLES KEPT IN STOCK.** Samples and prices on application.

Telegrams—"FUERST LONDON."

Telephone No. 1050.



**R. W. GREEFF & CO.**

AGENTS FOR

**RIEDEL'S PHARMACEUTICAL SPECIALITIES.****SALIPYRIN-RIEDEL** $(C_{11}H_{13}N_2O C_7H_6O_3)$ 

Applied in Therapy where Antipyrini and Salicylic Acid are prescribed together, but has no objectionable after-effects, even if taken in doses of 6 grs. pro die.

R. W. GREEFF &amp; CO. are also Manufacturers' Agents for the following Specialities:—

**IRON REDUCED BY HYDROGEN.****ACETANILID, PUREST, BEST CRYST.****ACETIC ACID, GLACIAL & P.B.****ACETONE, PURE, 98°.****GLYCERINE, 1,260 d.d., &c.****CASTOR OIL (FRENCH).****MAGNESIA, CARB. AND CALC.****SODA HYPOSULPHITE.****SUGAR OF MILK.****ANILINE COLOURS** (CELEBRATED BERLIN BRANDS).

SOLE WHOLESALE AGENTS:

**R. W. GREEFF & CO.,** 29 MINING LANE, **LONDON, E.C.****SULPHATE OF QUININE**

(GOLD AND SILVER BRAND)

**QUININE FACTORY AUERBACH**

(DR. SEYFERTH).

*Certified by Professor Fresenius, of Wiesbaden, as equal to the best preparations of other marks.*

THE FACTORY SUPPLIED THE

RUSSIAN, AUSTRIAN, and DUTCH GOVERNMENTS during last Season.

**DEUTSCHE GOLD AND SILBER SCHEIDE ANSTALT**

(VORMALS ROSSLER),

**FRANKFORT-ON-MAINE**CYANIDE OF POTASSIUM,  
IODIDE OF POTASSIUM,  
BROMIDE OF POTASSIUM,  
NITRATE OF SILVER,  
CHLORIDE OF GOLD,  
SULPHOCYANIDE OF BARIUM,IRON Reduced by HYDROGEN,  
TARTARIC ACID,  
HYDROCHLORON,  
STRONTIA,  
MAGNESIA, and ALL OTHER  
CHEMICALS for

PHOTOGRAPHIC and PHARMACEUTICAL PURPOSES, of the Best Quality.

Sole Agents—**OSCAR ANDREAE & CO.**  
26 Great Tower Street, LONDON E.C.**SAVARESSE'S CAPSULES.**  
**SANDAL WOOD COPAIBA**

36s. and 18s. per dozen.

**SAVARS CUBEB CIGARETTES.**

Always give relief in Asthma, Influenza, Cold and Hay Fever. 1/- boxes 9/-, 2/6 boxes 24/- per doz.

**"ANGLO-NORWEGIAN" COD-LIVER OIL.****SEASON 1890.**

This Extra Oil is pure, stands the cold without solidifying, and is quite sweet, with an agreeable odour of the fresh liver. Artistic Labels, with Chemist's name and address.

**EVANS, LESCHER & WEBB,**  
LONDON. MONTREAL: [10]  
EVANS, SONS & CO. EVANS AND SONS (Lim.)



# NEPENTHE.

## THE SAFEST AND BEST PREPARATION OF OPIUM.

PRODUCES NEITHER HEADACHE, SICKNESS, NOR CONSTIPATION.  
PREPARED EXCLUSIVELY FROM OPIUM.

Although many new hypnotics and analgesics have been recently introduced, NEPENTHE still holds its position as THE hypnotic and sedative *par excellence*. "Nepenthe" is registered under the Trade Marks Act, and is our sole property. No other preparation should be substituted when Nepenthe is ordered in a prescription.

Sent out in bottles bearing a label in white letters upon a green ground. We prepare also *Double Strength Nepenthe*, and *Glycerole of Nepenthe* (eight times the single strength) for hypodermic injection.

PRICES AND TERMS ON APPLICATION.

FERRIS & CO., WHOLESALE AND EXPORT DRUGGISTS, BRISTOL.

LOFTHOUSE & SALTMER,  
MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT DRUG MERCHANTS,  
HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application

DEALERS IN PURE CHEMICALS

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot; Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine; Aniline Dyes; Bees' Wax, &c., &c.

Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt. casks. Most Favourable Quotations can be given on application.

FREDK. BOEHM,

Billiter Square Buildings, LONDON.

ESSENTIAL OILS.  
POMADES. PERFUMES.  
FLORAL WATERS.  
OTTO OF ROSE.  
FRENCH CASTOR OIL.  
PETROLEUM JELLY. MINERAL OIL.  
SOAP, AND CONFECTIONERS' COLOURS.

PRICES ON APPLICATION. [2]



We distil pure oil of Eucalyptus GLOBULUS (which contains 86 per cent. of Eucalyptol, far in excess of any other variety) as a by-product in the manufacture of our Eucalyptus Boiler Fluid, and are therefore enabled to place it in quantities at a much lower rate than has heretofore been asked for it.

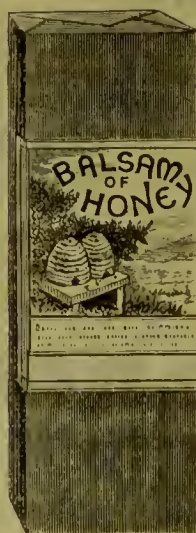
DOWNIE B. I. P. CO.

4 REDCROSS STREET, LIVERPOOL; and  
204 MARKET ST., SAN FRANCISCO.

42

HAWLEY'S COUNTER ADJUNCTS

BALSAM OF HONEY.



With a view of making the list of Counter Adjuncts as complete as possible, we have added to it another Cough Mixture, to which we give the name of "Balsam of Honey." It is pleasant in flavour, being more like a liqueur than a medicine, and will be found to be very efficient.

STYLE.—1½ oz., 3 oz., and 6 oz. Pale Panelled Flats, the small size unwrapped, but the two larger wrapped in handsome deep blue paper, bearing artistic label suitable for name and address.

PRICE.—Small 6d., 3/9; 6 doz. 3/9 doz.  
Medium 1/-, 7/6; 6 " 7/- "  
Large 1/6, 11/-; 6 " 10/6 "

PECTORAL LINSEED BALSAM.

6d. and 1/-. Same prices as Balsam of Honey.

A New Feature of this Counter Adjunct is that the WHOLE of the wording may be changed to suit the requirements of Customers, as we have a supply of the labels in blank, merely bearing the floral design.

EVANS, LESCHER & WEBB,

LONDON.

LIVERPOOL:

MONTREAL:

EVANS, SONS & CO.

EVANS & SONS (LIM.)



# BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

**BARRON, SQUIRE & CO., BUSH LANE,**

and also the various Formulæ of the Special Preparations of

**JAMES BASS & SONS, HATTON GARDEN,**

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

*Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.*

# MOONSEED BITTERS

**MAY, ROBERTS & CO.** will sell WITHOUT AGREEMENT

2s. 9d. Size ... .. 26s. per dozen.

4s. 6d. „ ... .. 44s. „

**LIBERAL CASH DISCOUNT TO LARGE BUYERS.**

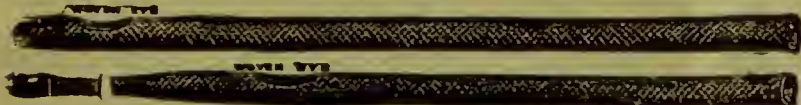
**9 CLERKENWELL ROAD, LONDON, E.C.**

**ESCHMANN BROS. & WALSH,**

Inventors and Manufacturers of the

**SOFT SILK FLEXIBLE CATHETER,**

**GUARANTEED WITH WOVEN EYES.**



To be had of all Surgical Instrument Makers and Wholesale Houses.

**VINCENT WOOD'S INVENTION.**

**THE "EUREKA" MEDICATED PINE WOOL FELT PROTECTORS.**

COLOUR—GOLDEN BROWN. THOROUGHLY WASHABLE.

FROM ALL WHOLESALE HOUSES AS FOLLOWS:—

		Sizes	0	1	2	3	4	5	6
Single	..	..	6/-	7/6	9/6	12/6	15/6	18/6	21/6 per dozen.
Double	..	..	13/6	15/6	20/-	25/-	30/-	36/-	42/- „

Chemists supplied Free with Window Glaciers Also with a Terra Cotta Statuette under Glass Shade with Stock Orders.

The Largest Maker (combined) in the civilised world of Trusses, Elastic Hosiery, Abdominal Belts, Suspensory Bandages, Chest-expanding Braces, &c.

Call and see me at **3 ST. ANDREW'S STREET, LONDON, E.C.**

TELEPHONE 6757.

TELEGRAMS—"ACME LONDON."





The only make of  
**CHEST PROTECTORS**

that will Wash  
WITHOUT INJURY.



Manufacturers:

THE

**LIVERPOOL LINT CO.**

MARK ST. MILL,

**LIVERPOOL.**

**LINT.**

**GAMGEE TISSUE.**

(PATENT ABSORBENT GAUZE AND  
BOTTOM WOOL.)

**ABSORBENT  
COTTON WOOL.**

ROLL BANDAGES.

ANTISEPTIC DRESSINGS.

**ROBINSON & SONS,**

COTTON SPINNERS AND MANUFACTURERS OF

**SURGEONS' LINTS, COTTON WOOLS,**

BANDAGES, & ANTISEPTIC DRESSINGS,

**WHEAT BRIDGE MILLS,**

NEAR CHESTERFIELD.



TRADE MARK.

Depot—55 Fann Street, Aldersgate Street, London.

REGISTERED

**MRS. E. FILCE'S**

**OINTMENT.**

None genuine with-  
out bearing the regis-  
tered trade mark.

SOLD IN 7½d., 1s. 1½d. and 2s. 9d. POTS.

**Sole Proprietress—Mrs. E. FILCE.**

(To be had of Chemists & Druggists throughout the United Kingdom.)

Local Address—1 Theobald Road, Croydon.



Trade Mark.



Registered.

THE  
**ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,**  
12 PALL MALL EAST, LONDON, S.W.  
**SOLE AGENTS FOR DR. WARLONMONT'S CALF VACCINE.**

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.  
HUMAN VACCINE, from healthy children only, microscopically examined and  
source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lan-  
cet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small  
Points, 6s. Tubes, two-thirds full (same as those mentioned above, but without  
source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per  
dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appoint-  
ment. P.O.O.'s (including postage, and crossed London and Westminster Bank)  
with orders, payable to  
**EDWARD DARKE Secretary.**

Office hours, 10 to 4. Saturdays 10 to 2

**WM. RADAM'S MICROBE KILLER.**

**CURES ALL BLOOD DISEASES.**

**Pleasant and Refreshing.**

**Specialty Useful in Hot and Invigorating.**

**Wholesale Warehouse, 111 OXFORD STREET, LONDON, W.**



REGISTERED.—More effectual than Mustard Leaves. May be obtained  
through any Wholesale House.

**CAPSICUM** is highly recommended in *The Lancet* by Sir J—  
S—, M.D., and Dr. H— J— B— for the treatment of Rheumatism,  
Neuralgia, Bronchitis, Bronchial Catarrh, Sub-acute Gout, &c.



# THE CARBOLIC SMOKE BALL

WILL POSITIVELY CURE—

FOR INHALATION ONLY.



COLDS  
COLDS in the HEAD  
COLDS on the CHEST  
CATARRH  
ASTHMA  
BRONCHITIS  
HOARSENESS  
LOSS of VOICE  
INFLUENZA  
HAY FEVER  
NEURALGIA  
THROAT DEAFNESS  
CROUP  
HEADACHE  
WHOOPIING COUGH

*As all the Diseases mentioned proceed from one cause, they can therefore be cured by one remedy—namely, the CARBOLIC SMOKE BALL.*

## THIS INFALLIBLE REMEDY IS USED BY

Duchess of Sutherland  
Marchioness of Bath  
Marchioness of Conyngham  
Marchioness de Sain  
Countess of Dudley  
Countess Dowager of Meath  
Countess of Enniskillen  
Countess of Ravensworth  
Countess of Lanesborough  
Countess of Aberdeen  
Countess of Home  
Countess of Elgin  
Countess of Chichester

Countess of Hardwicke  
Countess of Carnwath  
Countess Manvers  
Countess Ferrers  
Viscountess Cranbrook  
Dowager Viscountess Downe  
Baroness de Linden  
Dowager Lady Garvagh  
Lady Elizabeth Home  
Lady Leucha Warner  
Lady Eleanor Harbord  
Lady Florence Duncombe  
Lady Henrietta Pelham

Lady Eva Wellesley  
Lady Alfred Paget  
Lady Campbell of Garscube  
Lady Erskine  
Lady Mostyn  
Lady Clavering  
Lady Borthwick  
Lady Annesley  
Lady Churchill  
Lady Cavendish  
Lady Wellesley  
Lady Isaacs  
Lady Algernon Percy  
Lady Aline Beaumont

Earl Cadogan  
Earl of Leitrim  
Lord Rossmore  
Lord Montagu  
Lord Fitz-Gerald  
Sir Edward Colebrooke,  
Bart.  
Sir Edward Birkbeck, Bart.  
Sir Robert Cunliffe, Bart.  
Sir Digby Murray, Bart.  
Sir Barnes Peacock, Bart.  
Sir Frederick Milner, Bart.  
Henry Irving, Esq.  
Leopold de Rothschild, Esq.

Retail Price, 10/- each. Chemists can obtain from all the Patent Medicine Warehousemen.

WHOLESALE AND SHIPPING FROM—

**WILCOX & CO., 239 OXFORD STREET, LONDON.**



**A GOING****WINTER LINE.****MONRO'S ELECTRIC SOLES**

Sell freely by merely displaying on the counter.

**MONRO'S ELECTRIC SOLES**

Are a positive remedy against cold feet.

**MONRO'S ELECTRIC SOLES**

Should be stocked by all Chemists—they are going.

**MONRO'S ELECTRIC SOLES**

Generate heat and are wonderfully comfortable.

**MONRO'S ELECTRIC SOLES**

Sell well, give no trouble, and make an extra line.

**MONRO'S ELECTRIC SOLES**

Cause a pleasant glow to pervade the whole system.

**MONRO'S ELECTRIC SOLES**

Are sold at 4s. per doz. pairs in Show Counter Boxes.

**MONRO'S ELECTRIC SOLES**

Can be had from all Wholesale Houses at home and abroad.

**MONRO'S ELECTRIC SOLES**

Sample dozen pairs sent post free for 4s. 6d.

**MONRO'S ELECTRIC SOLES**

Are the most saleable soles in the market.

**MONRO'S ELECTRIC SOLES**

Can be seen and bought at Messrs. Edwards &amp; Son's, Queen Victoria Street, London.

**MONRO'S ELECTRIC SOLES**

Both sell well and pay well, and give entire satisfaction to both the buyer and seller.

**SPECIAL TERMS TO WHOLESALE-BUYERS & SHIPPERS FROM****AYRTON & SAUNDERS, LIVERPOOL**Postal Address—  
AYRTON & SAUNDERS, LIVERPOOL.Telegraphic Address—  
SUNDRIES, LIVERPOOL.Telephone Number—  
423.



# "AGREED AT LAST."

THE Statuette, as drawing below, is effectively produced in Terra Cotta, the likenesses of the two great political leaders being most striking, and their expression clearly shows they have at last found a topic on which no difference of opinion can exist, viz., that "Hockin's Acme Cones are the best."

We present this striking group, which is 18 inches high, with all first orders for £2 10s. worth of our

## "ACME" BRAND PURE MENTHOL CONES

(not more than £1 in value to be taken in 1d., 2d., and 3d. Cones.)

W  
A  
R  
R  
A  
N  
T  
E  
D

NEW PATTERNS,  
SPECIALLY  
SALEABLE.

No.

\*217F. Glass Show Bottle,  
with foot, as fig. 88, 1/8  
per doz.

\*217A. Glass Show Bottle,  
with foot, as fig. 161, 3/-  
per doz.

\*214A. Glass Show Bottle,  
with foot, as fig. 161. This  
has a very large Cone. 4/3  
per doz.

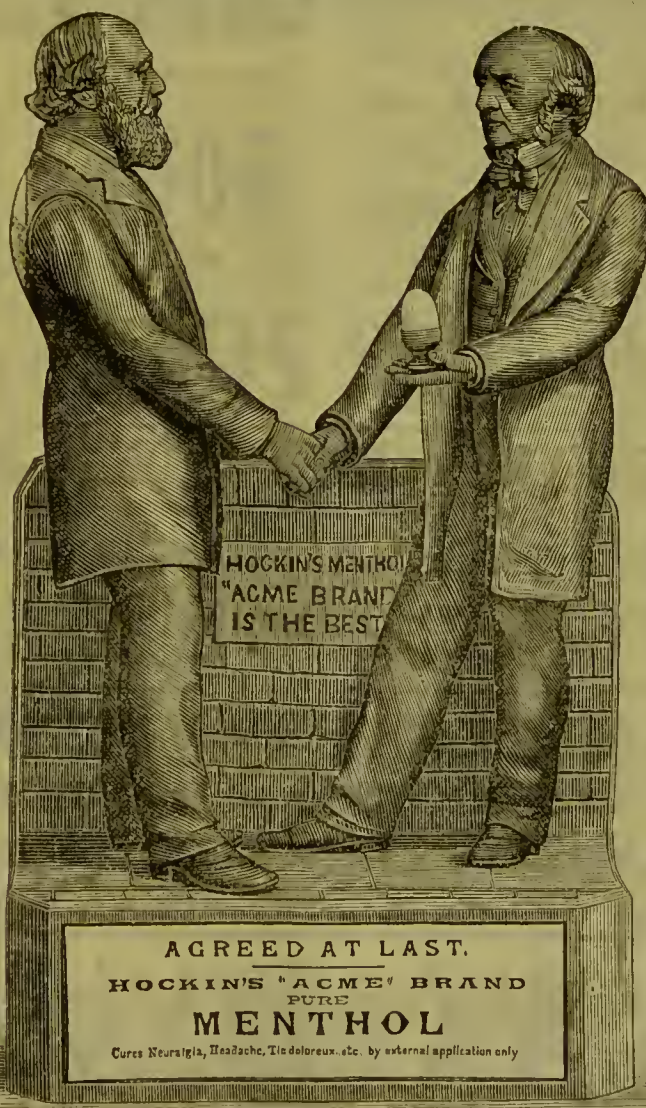
220. Cone Shape, as fig. 203,  
each in slide box, 1 doz. in  
Outer, extra size, 4/3 per  
doz.

\*221. Large Flat Draughts-  
man, very large Cone (120  
grains), 4/9 per doz.

222. Elegantly cut Show  
Glass Bottles, as fig. 222,  
3 cuttings, 9/- per doz.

224. Enamelled Tin Box,  
Printing on box, 30 gr.  
Cone, 1/6 per doz.

\* These are packed in 1-doz.  
Hanging Glass-fronted Boxes.



### 1d. CONES.

No.

219. Willow Boxes, bottle,  
barrel, or acorn shape,  
3 doz. on card, one sort  
or assorted, 6/- gross.

### 2d. CONES.

202s. Polished Willow Boxes,  
bullet shape, 2 doz. on card,  
12/- gross.

201s. Polished Willow Boxes,  
barrel shape, 2 doz. on card,  
12/- gross.

206s. Polished Willow Boxes,  
cone shape, 2 doz. on card,  
12/- gross.

### 3d. CONES.

207s. Polished Willow Boxes,  
Draughtsman shape, 18/-  
gross.

### 4d. CONES.

88g. Polished Soft Wood,  
pedestal shape box, 80  
grain cones, 1 doz. on  
card, 2/9 doz.

P  
U  
R  
E  
  
M  
E  
N  
T  
H  
O  
L

We only quote the most saleable patterns here. Detail of all shapes on application.

For Buyers who find 50/- worth too much, we shall be glad to send with an order for 25/- an OPAL GAS GLOBE, lettered as an Advertisement for Menthol, which makes a most striking and attractive addition to a Pharmacy.

## HOCKIN, WILSON & CO.

13 to 16 NEW INN YARD, 186a TOTTENHAM COURT ROAD, LONDON, W.

CATALOGUE OF SUNDRIES AND SPECIALITIES FORWARDED ON RECEIPT OF BUSINESS CARD.



# PETROLEUM JELLY

PARAFFINUM MOLLE B.P. (PIONEER BRAND.)

Equal to and Cheaper than **VASELINE.**

FOR MEDICAL AND PHARMACEUTICAL PURPOSES.

White, Yellow, Veterinary, and Waterproof. All kinds put up in 1-lb., 5-lb., 7-lb., 14-lb., 28-lb., and 56-lb. Patent Tins, and in 300-lb. Barrels.

SEND FOR SAMPLES AND PRICES TO THE MANUFACTURERS—

**GRINDLEY & CO., Lim., POPLAR, LONDON, E.**

**COLTHURST & HARDING,**



BALL DENOTES  
COLOUR OF PAINT.

BRISTOL—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."

LONDON—Manufactory: Alpha Works, Millwall E. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."

**HARD LUSTROUS ENAMEL,**  
IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

**WHITE LEAD, ZINC WHITE,**  
PAINTS & COLOURS OF ALL KINDS.

**MIXED PAINTS READY FOR USE,**  
In Tins, 1, 2, 4, 7, and 14 lbs. each.

**HIGH-CLASS VARNISHES**

Of all kinds, for Coachbuilders, Decorators, &c.  
OIL BOILERS, REFINERS, & MERCHANT  
Export Orders receive special and prompt attention.

**EADE'S**

CELEBRATED

**GOUT**

AND RHEUMATIC

**PILLS.**

THE SAFEST and MOST  
EFFECTUAL CURE for

Gout,  
Rheumatism,  
Rheumatic Gout,  
Lumbago,  
Pains in the Head  
Face, and Limbs, &c.

They require neither confinement nor alteration of diet, and in no case can their effect be injurious.

Prepared only by **GEORGE EADE,**  
72 Goswell Road, London, and sold by  
all Chemists, in bottles, 1s. 1½d.; three  
in one, 2s. 9d.



**GRINDING**

In all its branches by Patent and Improved Steam Machinery.

DRUGS, CHEMICALS, FULLER'S EARTH, SEEDS, SPICES, ROOTS, BARKS, &c.

**JORDAN & CO., BERMONDSEY GRINDING MILLS**

WHITE'S GROUNDS, BERMONDSEY LONDON, S.E.

**MILLAR'S BRITISH WINES.**

ORANGE (suitable for Quinine), GINGER, RAISIN COWSLIP, CHERRY, &c.

**A. MILLAR & CO., Thomas Street, DUBLIN.**

Sole Agents for London and District—**H. J. BOYDANT & CO., 75 Acre Lane. Brixton. S.W.**

All  
Wholesale  
Houses.

LONDON, CHRISTIANIA, STAMSUND, AND SYLTEFJORD

For terms and particulars, apply to the Proprietors—**GUY'S TONIC COMPANY,**  
4 Ludgate Circus, London, E.C. It may also be obtained from the usual Wholesale Houses.

**Guy's Tonic**

**Guy's Tonic** is sold Retail at 2s. 9d. per bottle. One size only prepared. We are co-operating with Chemists and the trade generally arranging satisfactory terms in return for general enterprise on our behalf.



# PETROLEUM JELLY.

Equal to VASELINE and much CHEAPER.

**GOLDEN, YELLOW, RED, AND WHITE.**

ANSWERS ALL REQUIREMENTS OF THE B.P.

Large 1d., 2d., & 3d. Tins, in 1-gross Boxes, and in usual-size Tins & Casks.

Save 25 per cent., and write for samples and quotations from the makers,

**HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.**

## BEESWAX.

**W. H. B. PURE REFINED.**

In 2-lb. cakes, in cases of about 130 lbs.

" 1 " " " 130 "

" 1/2 " " " 110 "

" 1/4 " " " 110 "

" oz. cakes in 2-lb. parcels in cases of 54 lbs.

**W. H. B. PURE WHITE.**

In round cakes in 2-lb. parcels, or in oblong cakes, loose } in cases of 54 lbs.  
In oz. cakes in 2-lb. parcels } and 56 lbs.  
Plain blocks of 7 1/2 lbs. in cases of 250 lbs.

**WHITE WAX.**

Plain round cakes in 2-lb. parcels in cases of 72 lbs.

The purity of these goods is certified by the following eminent chemists: S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysts of Eng., Montreal, P. Q.; Edward Davies, F.O.S. and T.I.C. and C., Royal Institution, LIVERPOOL, Eng.; Bernard Dyer, D.Sc., F.C.S., F.I.C., Member of the Society of Public Analysts, 17 Great Tower Street, LONDON, E.C., Eng.; Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal., and may be obtained of any of the leading Wholesale Druggists in the Northern and Midland Counties.

We will deliver our goods in 5-cwt. lots ex quay, in any city which is the Terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

Our Goods may be obtained in single Case lots from any of the Leading Wholesale Druggists in the Northern and Midland Counties, and of

**W. H. BOWDLEAR & CO., BOSTON, MASS., U.S.A.**

Cable Address:] Office and Warehouse—36 CENTRAL WHARF. "Bowdlear Boston."

## WILEY'S CHEMICAL ESSENCE

FOR

**LAMENESS IN HORSES.**

Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis  
**50 YEARS' UNBROKEN SUCCESS.**

**SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS**  
TO BE HAD OF USUAL WHOLESALE HOUSES.

## WALKER, TROKE & CO.

WHOLESALE AND EXPORT DRUGGISTS,

**82 CITY ROAD, LONDON, E.C.**

SOLE MAKERS OF

**GABRIEL & TROKE'S  
GELATINE  
CAPSULED  
HORSEBALLS.**



ELEGANT IN APPEARANCE.  
EASY IN ADMINISTRATION.  
EFFICIENT IN ACTION.

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

QUOTATIONS & SAMPLES FREE ON APPLICATION.





# R. H. BARRETT,

Flint Glass Bottle Works,  
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

For Beauty, Cheapness, and Efficiency R. H. BARRETT'S

## WATCH SMELLING-SALT BOTTLES

EXCEL ALL OTHERS IN THE MARKET.

The Caps are all fitted with **INDESTRUCTIBLE WASHERS**, to resist the action of Ammonia and retain the strength of the Salts.

Price, assorted white and coloured, 10/6 per gross (in 5-gross lots).

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered

Telegraphic Address—"FOREFRONT LONDON:" [1]

IT WILL PAY YOU TO SEE



Gardner's Patent "Rapid"

### SIFTERS & MIXERS

At Stand 43, Cattle Show,  
BINGLEY, HALL,  
BIRMINGHAM,

November 29th to December 4th, 1890.

ALSO

SMITHFIELD CATTLE SHOW  
LONDON,

Stand 39,

December 8th to 12th, 1890.

## I. ISAACS & CO.'S

PRICES FOR WHITE PHIALS.

$\frac{1}{2}$ oz. & under	1	$1\frac{1}{2}$	2 ounce.
3/6	3/9	4/6	5/3 per gross.

DITTO—VERY SUPERIOR QUALITY.

$\frac{1}{2}$	1	$1\frac{1}{2}$	2 ounce.
4/6	5/	5/6	6/ per gross.

PANEL BOTTLES, BLUE TINTED.

1	2	4	6	8 ounce.
6/	7/	8/	9/	9/ per gross.

PANEL BOTTLES, WHITE FLINT.

1	2	4	6	8 ounce.
7/	8/	10/	12/	13/ per gross.

25 FRANCIS ST., TOTTENHAM COURT ROAD,  
LONDON.

## DISPENSING BOTTLES & PHIALS

SPECIAL PACKAGE NOW READY,  
containing

		s.	d.
2 Gross 8-oz. Bottles	...	16	0
2 " 6-oz. "	...	16	0
2 " 4-oz. "	...	14	0
		<b>£2</b>	<b>6 0</b>

All other kinds and sizes equally low. Please write for prices of any size required.

## I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS.

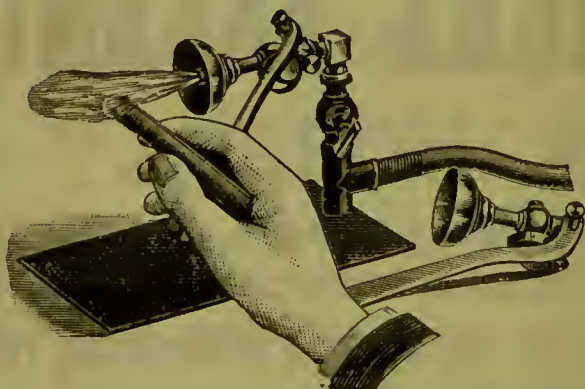
25 FRANCIS ST., TOTTENHAM COURT ROAD,  
LONDON.

BANKERS: LONDON AND WESTMINSTER BANK.

ESTABLISHED UPWARDS OF 50 YEARS.

## HAWE'S PATENT SELF-ACTING SEALING JET

Adapted by The Apothecaries Hall, and  
leading Chemists, Stationers, and  
Tobaccoists.  
Great saving in Gas and Labour.



NEW.  
QUITE

SINCLAIR, TWEEDIE & CO., 13 ELDON STREET, LONDON, E.C.

## G. B. KENT & SONS

Have been awarded the ONLY



A.D. 1777.

GOLD MEDAL



At the Paris Exhibition, 1889, for

## ENGLISH BRUSHES

See Advt. pp. 189-192, The Chemist and Druggist,  
July 26th, 1890.

## STOKES'

## PATENT CHECK TILL SYSTEM.

A SOUND INVESTMENT.



Each Till has only to  
display 2d. per week  
deficiency to return 15  
per cent. on outlay.

30,000

Sales Checked  
for

3 SHILLINGS.

Terms and full particulars on application.

G. R. STOKES & CO., Limited, Hanley, STAFF.





PHILADELPHIA, 1876.



MELBOURNE, 1880.



MELBOURNE, 1888.



SYDNEY, 1879.

# KILNER BROTHERS

## GLASS BOTTLE MANUFACTURERS.

No. 3<sup>A</sup> GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.



PARIS, 1878.

Telegraphic Address :

"BOTTLES LONDON."



LONDON, 1862.

Telephone

No. 7509.



PARIS, 1875.

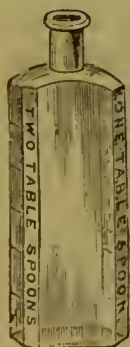
## MINERAL WATER BOTTLES.



Codd's, Bulbs, and all the best stoppered kinds ; full size and splits. Also CORK Bottles in all sizes and shapes.

VAN BOXES and CASES to contain above and many other kinds of bottles.

For full particulars see Special Illustrated Catalogue of Mineral Water Bottles, Boxes, Syphons, &c., issued each Season.



## DISPENSING BOTTLES.

In Green and White Flint. All the required sizes. Flat, Oval, Round, Octagon, and Direct Square. The "K" brand, being well known, is in constant and large demand.



## FEEDING BOTTLES.

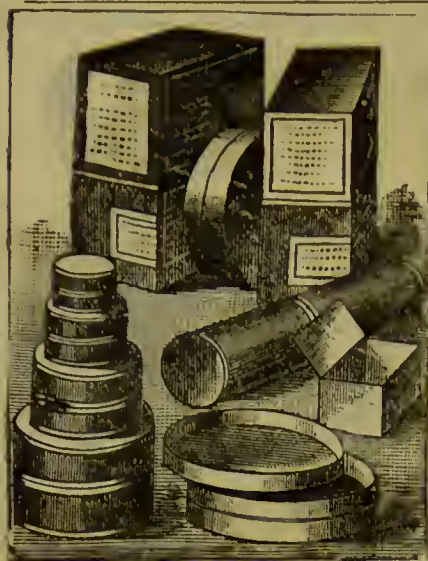
Fitted in a large variety of styles to suit all classes of buyers.

Careful attention is given to quality of Bottles and Rubber.

Increasing sales testify to the satisfaction given by these Feeders.

For further particulars see Illustrated Price List of Dispensing and other Bottles, which will be sent on application.





# AUSTIN & CO.

Patentees and Manufacturers of FANCY CARD

## ROUND, OVAL, AND SQUARE SHAPED BOXES

FOR POSTAL AND GENERAL PURPOSES.

ALSO PATENT BARREL PACKAGES WITH METAL ENDS, FOR DRY GOODS,  
AND

Makers of best class of Violet Powder Boxes, and high-class goods of every description for Perfumery, &c.

8 GREVILLE ST., HATTON GARDEN, LONDON, E.C.

STEAM WORKS, 2 PRINTER'S BUILDINGS.

[2]

GOLD MEDAL AWARDED, EDINBURGH INTERNATIONAL EXHIBITION, 1890  
No BATH ROOM or CARRIAGE is fully Equipped without

## RANKIN'S CORK MATS

Recommended  
by  
Medical Men.

A  
REAL  
COMFORT.

Warm, Soft, and Dry, Easily Washed, Clean, and Durable.

They Prevent Chills in Bathing, and keep the feet warm and comfortable.

Mr. GLADSTONE pronounces them to be *very useful*, and Lord SALISBURY and many of the Nobility and Gentry now use and appreciate them. They prevent cold feet in Driving, in Church, in the Counting-house, in Stone-floored Apartments. Numerous testimonials to their usefulness in a great variety of ways.

Sizes: 1 ft. square to 20x45 in. Prices: 3/ 5/ 7/ 8/ and 10/ 8 each. Special Mats up to 21/ each. Of all leading Chemists and Furnishing Houses.

CAUTION—Each Genuine Mat branded "Rankin's Cork Mat."

Wholesale terms on application to

WM. RANKIN & SONS, Cork Importers, GLASGOW & LISBON.



Wholesale Chemists' Agents: S. MAW, SON & THOMPSON.

## CHALMERS' PATENT SAMPLE AND PARCELS POST BOX, THE ONLY BOX

That fulfils ALL the requirements of the POST OFFICE.



Is fastened INSTANTLY.

Cannot open by accident.

Is immensely strong.

Has no corners.

No seams, joints, nor solder.

Nothing to scratch or tear letters.

Is practically air-tight:—Is used for Flour, Cherry Blossom, Sanitas, and Soap-Powders.

Dispenses with string, bags, and paper.

Saves 19 minutes out of 20.

OVER 300,000 SOLD.

SAVING THEIR OWN COST.

W. B. CHALMERS, 37 MINCING LANE, E.C.

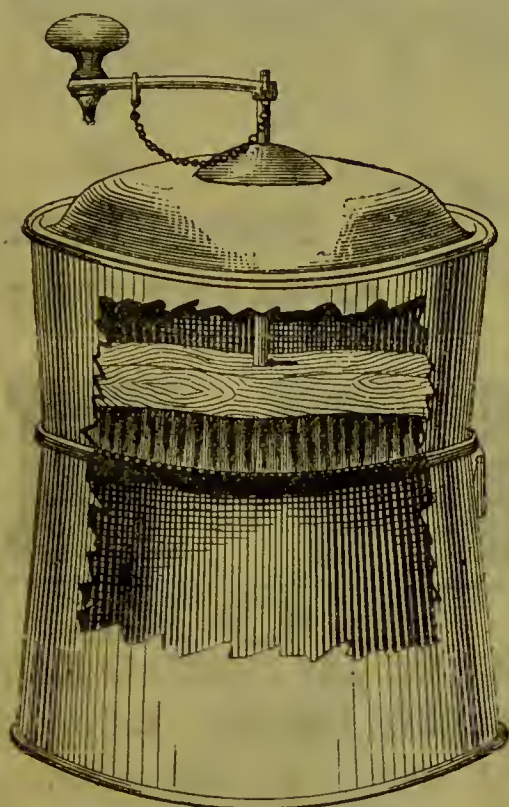


# WILLIAM TOOGOOD'S

## WAREHOUSE AND SHOW ROOM,

### BURLINGTON BUILDINGS,

### HEDDON STREET, REGENT STREET, LONDON, W.



### TOOGOOD'S BRUSH MIXING MACHINE.

To mix 3 lbs. Powder ...	...	...	12/- each.
To mix 1 lb. „ ...	...	...	8/- each.

All stock Machines are fitted with Sieves 60-mesh, but any other sizes can be supplied at same price.

### CROSSE'S SAFETY ENEMA PAN.

REGISTERED No. 138,518.



#### PRICES :

In White Earthenware ...	...	...	4/- each.
In Stoneware ...	...	...	2/3 each.

# THE LACTOTHERME

(Registered Trade Mark), Patented; or,

## INFANT'S PORTABLE FOOD STOVE.

THE BEST MEANS OF HEATING CHILDREN'S MILK;

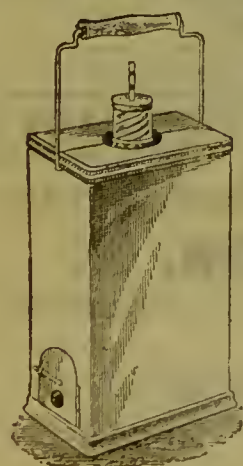
MAINTAINS A TEMPERATURE OF 98° F. SIX TO SEVEN HOURS.

DOES NOT CAUSE THE MILK TO TURN SOUR.

DESCRIPTIVE PAMPHLET POST FREE.

Prices: 6/-, 8/3, 10/- each.

(1)



Colonial and Foreign Enquiries and Correspondence solicited.



**HORN & SON**  
OFFICES FOR BRITISH AND FOREIGN  
**PATENTS AND TRADE MARKS,**  
SOMERSET CHAMBERS, 151 STRAND, LONDON  
(NEXT TO SOMERSET HOUSE).  
Guide to New Patent Law and Registration gratis.

2/6] **LOWE'S** [1/6  
**LIVER MIXTURE.**

C. LOWE, CHEMIST, SURBITON, S.W.  
Through all London Houses.

"**SILVERY WHITE GUTTA PERCHA ENAMEL**"  
TRADE MARK,  
**TOOTH STOPPING.**



P. A. STEVENS, Surgeon-Dentist,  
72 MANFIELD ROAD, N.W.,  
SOLE PROPRIETOR AND MANUFACTURER.

Registered—No. 3745.

Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name.  
A sample box of 3d. sticks sent post free for 12 stamps. Price list and samples free.

**WILFORD & CO.**  
Authorised Agents of **COUNT MATTEI,**  
Are prepared to execute  
Large or Small Orders for any of his Preparations.

Send card for terms, with list of Remedies and their uses, to  
41 HANWAY STREET, OXFORD ST., LONDON.

**HAND-PICKED GUM ARABIC.**

Wholesale and Export Druggists before buying elsewhere  
should apply to

**FREDK. FINK & CO.**  
10 & 11 MINCING LANE, LONDON, E.C.

Send 12 stamps for sample dozen of 3d. Sticks of White Gutta Percha Tooth  
Stopping.

**BEST GUTTA PERCHA OR METALLIC**

**TOOTH STOPPINGS**

Are Manufactured by J. J. LAKEMAN, Dentist, LEYTONSTONE.

Special Terms to Wholesale Buyers.

Maker of the MERMAID IMPRESSION COMPOSITION for Dentists' use, 3s. per lb., post free.

**GREENSILL'S**  
ORIGINAL  
**MONA BOUQUET.**

Wholesale and Shipping Terms sent on application to the Sole Manufacturers—  
**GREENSILL & SON, DOUGLAS.**  
ESTABLISHED 1852.

**WATERPROOF ACCOUCHEMENT SHEETS**

Manufactured for the Patentee by

**ROBINSON & SONS,**  
Manufacturers of Antiseptic and Absorbent Linths, Cotton Wools, Gauzes,  
and Roll Bandages.

**WHEATBRIDGE MILLS, CHESTERFIELD**  
And 55 Fann Street, Aldersgate Street, London, E.C.

**PRECIPITATED CHALK,** WHITEST AND  
PUREST.

CHEAPEST SELLERS IN THE MARKET.  
ALSO CHEMICALS, DRUGS AND OILS.

APPLY TO  
**AUG. LEVERMORE & CO.,**  
8 LIME STREET LONDON, E.C.

**BARTON'S EXTERMINATOR.**

ONE SHILLING PER BOX.



Kills and Completely Dries up Rats or  
Mice. Does Not Harm Dogs or Cats.  
No Smell from the Dead Ones.

**WOLSTENCROFT & CO., 28 LUDGATE HILL, E.C.**  
THROUGH ALL THE WHOLESALE HOUSES.



**INDIARUBBER STAMPS**

For all purposes and in all styles.

Self-Inking Stamps, as Illustration, from 2/ each.  
Chemists' Prescription and Dating Stamps  
of all kinds, Brass Seals for Wax, Stencils,  
Dies, &c. Price and Pattern Sheets post free.

J. BERKLEY, 8 LIVERY ST., BIRMINGHAM.

**EXCELSIOR POULTRY PILLS,**

FOR POULTRY, PIGEONS, AND ALL KINDS OF CAGED BIRDS.

The best Pills for all complaints, give every satisfaction, command a large and  
increasing sale. Don't fail to stock Excelsior Poultry Pills if you want a good sell-  
ing line. Neatly got up to Retail in Boxes 2d. and 6d. each. Wholesale price—  
Case of 18 2d. Boxes, 2/; 1 Gross, 15/. Case of 2 Dozen 6d. Boxes, 7/; 1 Gross of 6d.  
Boxes, 40/. Carriage Paid on not less than 4/, 5 per cent. off 20/, 15 per cent. off 40/.  
Cash with Order. Show and Counter Bills supplied. [1]

W. H. LAKIN, Manufacturer, 16 New Bond St., LEICESTER

ESTABLISHED 1855.

**SANFORD & SON**

MANUFACTURERS, SANDY, BEDS

Sole Proprietors of Sanford's Celebrated RAT POISON, with-  
out doubt the best ever introduced. Price, 6d., 1s., 2s., and 3s. per box.  
Also MICE POISON; cannot be excelled. In packets, 3d., 6d., and  
1s. each. Liberal terms to Chemists.

Wholesale of BARCLAY & SON, SANGER & SON, NEWBURY &  
SON, EDWARDS & SON, and others, London.

**THE OLDEST ENGLISH & AMERICAN CHEMIST**  
in PARIS (founded 1808)

**BOISSY late GALLOIS**

2, Place Vendôme, Corner of rue St-Honoré

would undertake one or two additional  
agencies for patent Medicines, Sundries, etc.  
Special connexion amongst Doctors  
in Paris & Provinces.

**ANTECZEMA**

**THE NEW EMOLLIENT SKIN PAINT.**

A harmless, non-poisonous, and unique remedy for  
SKIN DISEASES.

A few applications will cure the most inveterate cases. It acts like magic, and is  
without a rival. In bottles, price 2/9. Write for terms to the Sole Agent—

R. C. LAYNG, CHEMIST, 93 FINSBURY PAVEMENT, E.C.  
Wholesale of F. NEWBURY & SON.

**JUST WHAT'S WANTED!**

**SHRINKING** entirely PREVENTED.

Lucas "EVICTOR" Soap

Is a SPECIALITY exclusively for Washing WOOLLEN Goods  
THAT ARE LIABLE TO SHRINK.

Neatly wrapped, full instructions, 1/4 Gross Boxes, 18/6 Gross Tablets.  
Of all Wholesale Houses, and C. W. LUCAS & CO., 51 Milton St., London, E.C.



**Fletchers' Hydrobromates**

Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—

Fletcher, Fletcher & Stevenson,  
21 Mincing Lane,  
London, E.C.

**S. SAINSBURY'S**

From English Lavender Flowers, and most choice and delicate scents.

**Lavender Water.**

176 & 177 STRAND, LONDON.

Established 1839.

Wholesale and Shipping terms on application.

**CHAMOIS**

FOR MIRRORS, SILVERWARE, DOMESTIC, UNDERWEAR AND TOILET USE.

**WHITE SPLITS**

PURE WHITE, SPLENDID QUALITY, FOR CAPPING PERFUMERY, &c.

**WHITE PLASTER SKINS**

FOR CHEMISTS AND DRUGGISTS.

Basils, White Norway Doeskins, White Mock Does, Buckskins.

T. P. LEE & CO., LIM., 24 DUKE ST., BLOOMSBURY, LONDON, W.C.

**BLAIR'S****GOUT & RHEUMATIC PILLS**

CURE GOUT. CURE RHEUMATISM. CURE SCIATICA.  
CURE LUMBAGO. CURE NEURALGIA.

The Excruciating Pain is quickly relieved, and cured in a few days, by these celebrated Pills, well known as the Great Remedy for the above Complaints. No restraint of diet during use.

Sold by all Chemists at 1s. 1½d. and 2s. 9d. per box.

**LEARNER'S****FOOT-ROT COMPOSITION.****A CERTAIN CURE.**

Extensively advertised in most of the purely Agricultural papers. Has lately attained a large sale, and everybody speaks of the preparation in the highest of terms.

Sold in Jars, 3s. each, sufficient for 60 to 70 sheep. One size only. Price to the Trade, 26s. per dozen, and can be obtained of BARCLAY & SON, EDWARDS & SON, SUTTON & CO., and SANGER & SON.

J. MARK & CO., 76 FANN ST., LONDON, E.C.

REPRESENT GERMAN MANUFACTURERS OF  
**ANEROID BAROMETERS**  
AND  
**THERMOMETERS.**

**HYDE, NASH & CO.**

16 Philpot Lane, LONDON, E.C.

**SPECIALITIES—**

Arabic and Varnish Gums, Glucose, Glycerine, Beeswax, Honey, Rhubarb, Insect Powder, Saffron, &c., &c.

Country orders for original packages included in public sale purchases at fractional margins.

**EMP. CERAT. SAPONIS.**

ON FINE SHIRTING, 16 IN. WIDE.

6s. per Dozen net cash.

JOHN QUILLIAM & CO., Plaster Works, Manchester.  
Cowburn Street.

**ORANGE WINE**

(VIN. AURANT., P.B.)

Specially brewed for Quinine Wine. Does not deposit, will keep good in any climate. In casks, 13 gallons to 140 gallons; small casks 3s. 9d. per gallon, carriage allowed if paid within three months. In wine-bottles (not less than 3 doz.), at 9s. per doz., bottles included. Casks and cases extra, and returnable.

Sample four stamps.

Special quotations to large buyers.

DURRANT & CO., Railway St., HERTFORD.

CHAS. GREEN & CO., Tower Chambers, LONDON, E.C.

GREEN'S HYPODERMIC AND OPHTHALMIC SOLUTIONS.

Lancet—"EXCELLENT PREPARATIONS."

GREEN'S SUBLIMATE (HgCl<sub>2</sub>) TABLETS (Acidified).

For Antiseptic use in Surgical operations, &c.

No. 1, 1 in 3,000; No. 2, 1 in 1,500, in 1 pint of water.

LIQ. SENNAE LEGUMINUM, a harmless laxative for children & pregnant women  
LISTS ON APPLICATION.

TO PUBLISHERS OF ALMANACKS, CHEMISTS WHO ADVERTISE, ETC.  
**PUSHING AGENTS WANTED**  
**For a Proprietary Article of Merit.**  
**NO CUTTING ALLOWED.**

All Chemists should send for particulars to  
**F. RIDDIOUGH, Chemist, KEIGHLEY.**

**SPONGE IMPORTERS.**

**M. PETERSON & CO.**

(ESTABLISHED 1870),

**75 ST. ANNE STREET, LIVERPOOL.**

**FOR HOME, FOREIGN, & COLONIAL MARKETS.**

**IN REPLY**

All purchasers of HOMOEOPATHIC Medicines and Preparations, before ordering elsewhere, should write to

**WATSON & WATES**

93 Leadenhall St., LONDON, E.C.,

For Price-List

Special Line—The "ACME" AGENT'S CASE. Is made in Mahogany, Walnut, Ebony, or Oak, to correspond with Shop Fittings, and is the most unique and attractive Show Case extant. £3 3s. net. Retail value of contents, £9. No charge for Case.

PHOTOTYPE ON RECEIPT OF POST CARD.



# HOW TO JUDGE SOAP

(From the Cantor Lecture, 1885.)

It is obvious that it does not follow that a soap is of high quality as a toilet soap simply because it is practically free from excess of alkali, although the converse is true—viz., that a soap is entirely unsuited for application to the skin when it contains much of that constituent, no matter how excellent it may be in other respects. In short, a toilet soap, to be of the first class from all points of view, must possess the following qualities, and foremost:—

1. It must contain practically no free alkali.
2. It must be made from materials free from all trace of rankness, coarseness, or rancidity—i.e., the fatty matters and oils, &c., used in its preparation must be of the best quality, carefully selected.
3. It should not be liable to discolour or brown to any great extent on keeping; soaps which have undergone this change occasionally acquire the power of injuriously affecting sensitive skins causing blotching and irritation, even though free from excess of alkali to any marked extent.
4. To be of high quality a toilet soap cannot contain large percentages of water, for this entails the use of saline matters to "close up" and harden the mass; and these, if present in any quantity, are not unlikely to affect the skin injuriously.
5. If tinted or "medicated" by intermixture with non-saponaceous matters, the soap must not contain any compounds capable of causing irritation, and especially should be free from poisonous metals, and notably from mercury, lead, copper, and arsenic.
6. It must not be liable to melt away rapidly even in hot water, and must lather freely, giving a bland emollient feel during use. Unless a soap can pass all these tests satisfactorily it cannot be regarded as a first-class article; if defective in one or more vital points it can only be assessed as second class; and if defective in many, third class.

## TEST YOUR SOAP.

We will supply, free on application, Tests for Soaps, with *bona-fide* Reports from Medical and Scientific Journals, together with facts and figures, showing "**Vinolia**" Soap to be the **Purest, Safest** and **Best** for Skin Irritation, Toilet, Nursery, and Bath. Recommended by Medical Men.

"'Vinolia' Soap is of unquestionable excellence, and is much in favour with the profession."—

*British Medical Journal*

"Odour delicate, and the article of excellent quality."—*Lancet*.

"An ideal soap, delightfully perfumed, and the skin has a velvety feeling after washing with it."—*Chemist and Druggist*.

OF ALL CHEMISTS. "Vinolia" Soap, 6d., 8d., and 10d. Shaving Sticks, 1s. "Vinolia" and "Vinolia" Powder, 1s. 9d.

BLONDEAU ET CIE., RYLAND ROAD, LONDON, N.W.